G. Engelmann

LXX.

VOL. XI. JANUARY, 1854. NO. 4.

THE WESTERN JOURNAL AND Civilian,

DEVOTED TO

Agriculture, Manufactures, Mechanic Arts, Internal Improvement, Commerce,

PUBLIC POLICY,

AND

POLITE LITERATURE.

Agriculture and the Mechanic Arts are the basis of Civilization.

M. TARVER & H. COBB,
EDITORS & PROPRIETORS.

PUBLICATION OFFICE: No. 73 Chesnut Street, near Planters' House.
Published monthly at $5.00 per annum in advance.
Postage 1 Cent a month, payable quarterly in advance.

ST. LOUIS,
Printed by M. NIEDNER & CO., Corner of Third & Pine Streets.

1853.

JOSEPH MOGRIDGE,

(Late TWICHELL & MOGRIDGE.)

COMMISSION AND FORWARDING MERCHANT,

38 Commercial and Pine Streets, ST. LOUIS, MO.

Liberal CASH ADVANCES on Consignments, IN HAND.—Personal attention given to the RECEIVING and FORWARDING BUSINESS.

REFERENCES:

Dean, King & Co., Page & Bacon, Chouteau & Valle, Charless, Blow & Co., — St. Louis.

Ellis & Morton, Strader & Gorman, Hosea & Fraser, Springer & Whiteman, E. O. Goodman & Co. — Cincinnati.

J. W. Butler & Bro., D. Leech & Co., Wm. Holmes & Co. — Pittsburgh.

H. D. Newcomb & Bro., W. S. Reynolds. — Louisville.

E. G. Yarnall & Co., Morgan, J. M. Buck & Morgan, B. E. Comegys, Shields & Miller. — Philad'a.

Blow & March, Frost & Forrest, Charles E. Meigs. — New York.

A. G. Farwell & Co., Howard, Son & Co. — Boston.

Josiah Lee & Co., Abraham G. Cole. — Baltimore.

T. C. Twichell & Co., Com. Merchants, New Orleans.

EXCHANGE, COLLECTION & COMMISSION HOUSES.

COCHRAN, BULLARD & CO
11 Camp Street, New Orleans.

S. W. & S. G. COCHRAN & CO.,
Mobile, Ala.

Dealers in Exchange, Time Paper, Uncurrent Money, Foreign and Domestic Gold and Silver. Checks on the principal cities of the United States for Sale.

Will receive Drafts, Notes,

and Bills of Account for Collection upon any point South and Southwest.—Proceeds of same promptly remitted at the current rates of Exchange, WITHOUT CHARGE.

REFER TO

ST. LOUIS—E. W. Clark & Bro., Bankers.
LOUISVILLE—J. P. Curtis & Co., "
CINCINNATI—Ellis & Morton, "
PHILADELPHIA—Drexel & Co., "
E. W. Clark & Co. "
Fales, Lothrop & Co.
BOSTON—Gilbert & Sons Bankers.
Howard, Son & Co.
MOBILE—John A. Winston & Co.
William Eckford.

N. YORK—John Thompson, Esq., Wall st.
Houghton & Co., Wall st.
Bebee & Co., Wall st.
Frost & Converse, Pearl st.
N. ORLEANS—Brander, Williams & Co.
Hill, McLean & Co.
Bradley, Wilson & Co.
J. P. Whitney & Co.
Converse & Co.
W. B. Parker & Co.

THE

WESTERN JOURNAL

and Civilian.

VOL. XI. January, 1854. No. IV.

ARTICLE I.

Excessive Trading.

There is no season so favorable to reflections calculated to enlighten the understanding and to improve the heart as the commencement of the year. At this period it is natural, for even light and trivial minds, to turn their thoughts upon the past, and review the events which have made the deepest impressions upon their memory. It is natural for all men to pause on the threshhold of the new year, and experience a momentary sense of trepidation at entering upon the unknown and inscrutable future which lies before them.

It is the season of accounting with ourselves, and with our neighbor, and with Him to whom we are indebted for all our enjoyments. It is the time of retrospection: and while facts are fresh in the memory, and the hearts of men are open to instruction, it should not be allowed to pass without improvement.

Eminent gifts require the observance of corresponding duties, and hence, in feeble and uncultivated minds the growth of virtue is overshadowed and checked by unwonted or sudden prosperity. Here we may observe one of the most difficult impediments to the progress of civilization: the want of a mental and moral basis of sufficient breadth and strength to support an indefinite accumulation of individual wealth and national power. This is the weak point in all social fabrics. It was the vital defect that occasioned the downfall of the great nations of antiquity; and it is our duty to guard our own social structure from decay at this point by all the means in our power.

In many respects, our country is the most favored portion of the earth, "a land of beauty and of grandeur," where all the ele-

ments combine to develop the human faculties in their highest degree of perfection. It is indeed a munificent heritage, and most worthily did our fathers observe the duties which it required at their hands. They established political and civil institutions calculated, in an eminent degree, to promote the fullest development of the mental and moral faculties; to incite men to investigate all subjects relating to their individual and social well-being; and to encourage industry in all its varied departments, by securing the enjoyment of its rewards to every individual. Such is the patrimony of the present generation—richer than was ever inherited by any other people. But in our inconsiderate haste to improve it, we lose the chief enjoyments which it is capable of affording.

A restless desire to accumulate wealth, prevails throughout the land, subjecting every human faculty to its imperious sway. It admits of no repose, gives no place to the finer emotions of the heart, makes every relation subservient to the attainment of one object, and abolishes the distinction between money and morals. It is not our province to draw aside the veil which conceals the mysteries of the domestic relations, and expose the inquietude and discord which spring from this source: enough is known to the public to admonish all men of the folly of making wealth the basis of their social relations.

The branch of this subject, which more properly belongs to the public economist, is *excessive trading*, originating in a desire to grow rich suddenly by buying and selling the products of other men's labors.

Without recurring to the several great revulsions which have prevailed throughout the land at different times, reducing very many to a state of destitution, blighting their hopes, destroying their usefulness, and demoralizing their character, the year which has just closed furnishes facts sufficient to admonish the American people of the evil consequences of over trading and speculation.

At no time in the history of this country have the elements of wealth been so abundant as during the year 1853. The seasons for several years preceding had been propitious, and the labors of the agriculturists crowned with a munificent reward, the mines of California were highly productive, yielding more than $50,000,000 per annum, the shipping interest was prosperous, and every branch of industry, save manufacturing and mining for the more useful metals, had been rapidly increasing, and yet, owing to ex-

cessive trading, great embarrassment has been experienced in every department of business.

After giving due weight to the fact that a large amount of money has been drawn from the ordinary channels of commerce for the purpose of building railroads, we still find a more potent cause of financial embarrassment in the excessive importations of foreign merchandize.

According to the report of the Secretary of the Treasury of the United States, the imports of foreign merchandize, including specie, during the fiscal year ending June 30th, 1853, amounted to $267,978,647, being an increase of $55,033,205 on the amount imported for the preceding year. Now if we suppose $50,000,000 of this increased amount of imports to be goods paying duty at the rate of twenty-five per cent., we must add $12,500,000 to the $55,033,205, making the value of imports for the last fiscal year, when received from the custom-house, about $68,000,000 more than for the year ending June 30th, 1852.

It is quite obvious from this view of the subject that it was not the building of railroads, but overtrading in commerce, and speculations in unproductive property, that occasioned the financial difficulties under which the country has been laboring for the last nine months.

The imports of the years 1851 and 1852 were regarded as excessive, but if there had been no increase on the amount received in 1852, every department of business might have remained in a prosperous condition, and the public improvements of the Western and Southern States would have been about one year in advance of their present stage.

It is true, the exports of 1853 exceed the amount of the preceding year, but it is shown by the Secretary of the Treasury that the amount including specie was $37,526,397 less than that of the imports. And here we find occasion to notice the remarks of the Secretary touching this deficiency. He says: "A fair estimate for profits on our exports and the freight of our vessels would cast the balance of this account in our favor, without estimating the money brought in by immigrants, of which no account is taken."

Similar views were entertained, more especially we believe, by Whigs, in the years 1835 and 1836, but the revulsion of 1837 exposed the falacy of such estimates. The commercial and financial history of this country proves beyond doubt that, whatever may be the profits

to dealers and carriers, the balances against this country must, as a general rule, be paid by the shipment of specie.

The Secretary of the Treasury makes no allowance for undervaluations of merchandize in foreign markets, and seems to forget that the freight which we pay to foreign vessels is a fair offset to that earned by our own. In the fiscal year ending 30th June, 1852, more than half of our domestic exports, and more than a third part of our imports, were made on foreign vessels.

From the notice taken of the money brought in by emigrants, it would seem that the Secretary entertains the opinion that it is to be regarded as an offset to the balance of trade against the country. It is true, it adds to the wealth of the nation, and were one taking an inventory to ascertain whether the country possessed a sufficient amount of money to pay its foreign debt, it would be proper to take this into the account; but it should be remembered that it is private property, and bears the same relation to the foreign debt as the money of other citizens; and as the immigrants are not supposed to possess a larger amount in proportion to their numbers than the old citizens, it is difficult to perceive the principle upon which the money they bring is to affect, in any material degree, the financial condition of the country. Indeed, it is not certain that the immigrants do not send home to their friends quite as much money as they bring with them. It appears from the report of the Colonial Land and Emigration Commissioners, for the year 1851, that £990,000, about $5,000,000, was remitted from the United States to the United Kingdom during that year by emigrants.

It is remarkable that, while the Secretary of the Treasury was looking outside of the custom-house reports for facts to show that the balance of $37,000,000 was merely nominal, it did not occur to him that some deduction ought to be made from these imaginary items for the interest accruing upon the public securities of this country held by foreign capitalists.

We regret that the spirit and tone of the Secretary's report is calculated, as we conceive, to encourage rather than check the mania for trading in foreign merchandize. We did not expect him to suggest a remedy for the evil; indeed, it may be doubted whether it is practicable to protect the country against the consequences of excessive traffic by legislation. There is a class of men whose temperament disqualifies them for that calm and steady employment

of their time and faculties which is necessary to make them successful producers or safe merchants. They are in a hurry to grow rich suddenly, and delight in excitement. They are speculators by nature, and can only be restrained from indulging their propensities by the most severe reverses of fortune. They profit nothing by experience: disappointment and failure make them only the more reckless, and when their means and credit are finally exhausted, they sink into a hopeless state of indolence and vice, rather than submit to the sober discipline required to ensure success in legitimate pursuits.

The following extract from the "*Placer Times & Transcript*," published at San Francisco, places the trading mania in such a clear light, that we are induced to copy the entire article, with a hope that the admonitions of the author may be of service to the country. The paper is dated November 15th, 1853.

VIEWS OF A SAN FRANCISCO MERCHANT.

The following severe but truthful remarks in regard to the recklessness of Eastern shippers in forcing upon us merchandise for which there is no immediate requirement, and which in most instances cannot be sold for cost and charges, are from a mercantile friend whose experience and standing entitle his views to the serious attention of those to whom they are addressed. We cheerfully give the article a place, and commend it to the perusal of our readers, particularly those on the Atlantic side.—*Editor of the P. T. & T.*

TO THE MERCHANTS AND SHIPPERS GENERALLY AT THE EAST.

The mail of to-day will take to you the same discouraging accounts which have been sent you semi-monthly six times in succession—and as we write, your past recklessness forces upon us this question—what will be their effect? We must except a few articles which are enjoying a momentary galvanized life, under a feeble fall trade, like that of Panama under a slight infusion of Anglo-Saxon energy. Here we stop. And now to make one last appeal to you to *cease shipments, not partially*, but altogether for *four* months. The sight of a clipper and cargo has changed from the pleasing to the revolting. You have loaded us, crushed us with goods, against fearfully ruinous prices, against a slowly increasing population, against good judgment, and a constantly falling market—against all these facts, reiterated every two weeks since last February.

For thirteen successive months, from May, 1852, to June, 1853, you placed at our wharves one ship per day, and for the last eight months you have continued to pour in upon us the goods, regardless of the advices of every house of standing amongst us; regardless, too, of all that we were daily receiving from every quarter of the globe—from Arracan, Batavia, Manilla, Hongkong

—from the Archipelagos of both Oceans—from England, France, Germany and Spain—from fertile Chili, and all the Spanish, Mexican, American and Russian ports which mark a line of coast six thousend miles in extent—from Talcahuanna to Oregon and Sitka—regardless of all this, we say, you have continued to roll in the merchandise upon us, two thousand tons per day, and not satisfied with quantity.

To designate a few articles. You have sent us against a thousand repeated advices, all the brands of flour that can be found in a New York *Shipping List*, and boldly asserted that they must keep sweet, whilst you have received monthly the beggarly sales of said flour—"Sour—musty—caked—perished. Sold at $7, $8, $9 per barrel." The next mail, however, brings us further invoices of the same sort, all of which must turn out *good*—so say your letters; and all of which always turn out *bad* — so say the facts. We tell you that even if it prove superfine, it would not realize so much by $3 per barrel as Gallego and Haxall, except in a time of actual scarcity; and your reply is, one more—another—yet another invoice. And thus you go on, till, we suppose, bankruptcy only will stop you.

Of Butter you have sent us 8, 11, 20, 15,000 packages per month, (our consumption say 9,000,) and the stock in this city alone now, clean and clear, 60,000, (five and a half millions of pounds,) and yet you now clear it by thousands of packages, as deliberately to a population of 300,000, as if you were sending corn to some famished Ireland, with her millions. Moreover, though often told you should ship none but the best, you purchase a cheap article for 12½ cents — invoice it 22 cents, and think we can sell it *blind*, quality, color, weight and taste. But the San Francisco of '53 is not that of '49. Having bought the article which you know CANNOT reach here in good condition, you place the cap stone upon your folly, by putting a costly cask around it, and filling it with salt and brine, and then to heighten an already too aggravated foolery, you pay 5c. ℔ lb *freight alone* to get it here, and nothing remains to exceed the consummate stupidity of the last act, but six months of self-deception, waiting *golden* returns as the result.

We tell you that Bacon must be thoroughly smoked and cured, and that a full quantity of salt must be placed between each peace, so that no piece shall touch another or the sides of the box. You reply, by stinting the salt and sending it half cured; and when the account sales reach you, "soft, tainted, *skippery*, bad, stinking —sold @ 4c. ℔ lb," you think that your consignee has cheated you, and tell him that it was put up by the first packers in New-York.

Is this sufficient? We *might* go an. California con promise you this year, seven millions of dollars losses, sure. We regret it deeply, but whom shall you thank but yourselves? You have de-

signed, built and cleared clippers in ninety days, and we have done the same in warehouses, all but the *clearing*, in thirty days; and this brings us to your only deed of omission. You have allowed the English insurance offices quietly to place away the trifling premiums of three, five, and eight per cent. per annum, on fire-proof buildings, which you yourselves shall say, (four hundred of them) cannot be surpassed or equalled for their fire-proof qualities, in any city on the Atlantic side. But we digress.

We don't know *when* to stop *writing*, or *how* to stop *you*. We ask you once more, as you regard your own credit and standing, to leave us alone. We assure you that we have stocks of some articles sufficient for many months, and of not a few, that cannot be consumed in a year. Nails, drugs, pilot bread, ground coffee, butter, boots and shoes, codfish, hardware of all kinds, spices, ploughs, tin ware, stationery are all like some of England's outstandings consolidated funds. Hams, bacon, and lard are in supply for six months, and there are still from the Atlantic domestic ports more than eighty ships yet to come in.

We beg of you to leave us—*not for a day—not partially*—but to cease shipments altogether for four months. In this way you *may* save something. Give us rest. The tender mercies of the parent have become indeed too great.

And with equal propriety and emphasis the whole country may say to the importers of foreign merchandise, "cease your shipments," until we have paid for and consumed the surplus commodities amounting, as we believe, to $75,000,000 which you have brought to our markets within the last twelve months.

We regarded the stringency in the money market last summer, as a fortunate occurrence, and felt strong confidence in the opinion that it would operate to reduce the importations of foreign merchandise to an amount corresponding to the exports of our agricultural and manufacturing productions; but in this we have been, thus far, disappointed. The most remarkable, and indeed the most alarming fact relating to the commercial affairs of the country, was the continual increase in the importations of foreign merchandise throughout a season of great financial embarrassment. In view of these facts, and the imports still continuing to increase up to our last advices, we must confess that the opinion which we expressed two months ago touching an improved state of the money market during the current year, has been much weakened. We had supposed until the report of the Secretary of the Treasury was published, that notwithstanding the increase of importations, the balance against this country had been kept down

by the export of specie, and consequently as soon as the importations were checked, money would commence accumulating; but it will take some time to adjust the balance, which may now be estimated at $50,000,000—even if the importations should immediately decline.

We still entertain a hope that this extraordinary influx of foreign merchandise will subside in time to save the country from a severe revulsion, but it is high time that the public mind was awakened to a serious investigation of the subject, especially in the Western States.

Shall our great projects of public improvement designed to open commercial avenues to the most isolated and remote districts, build up our cities, bring into social contact the inhabitants of every part of our common country, binding them together as one family, be suspended and abandoned for an indefinite period, that we may enjoy the use of foreign commodities, which contribute more to the vanity than to the comfort of the consumer? Common sense and patriotism forbid that such should be the case. If it be ordained that we must have a revulsion, let us have something to show for it: better have unfinished railroads than rich wardrobes and ornaments that convict the bankrupt of extravagance and folly, which deprive him of the confidence and sympathies of the community.

But it is yet in the power of the western people to protect themselves against the evils of overtrading, and also carry out their plans of public improvement, if they will change their policy. Let them withdraw their bonds and mortgages from market, and go to work upon their own means like men resolved to accomplish whatever they undertake. If they will pursue this course with judgment—not undertaking too much at a time—instead of breaking down, they will gain strength as they progress; and instead of paying merchants' bills for superfluous commodities consumed, they will add to their wealth by accumulating certificates of good dividend-paying stocks.

Indeed we can imagine no better way of checking the excessive importations of foreign merchandize than to create a local demand for money for public improvements. Hitherto the people, in general, have not felt the burdens of constructing railroads in the West. The money used in carrying them on has been drawn chiefly from the eastern cities, and hence the volume of circulation has

been increased, and the consumption of foreign commodities encouraged. This was a natural consequence; and it may be well questioned, whether it is practicable to carry this system much further without producing a state of general embarrassment.

We submit these suggestions more especially to the people of Missouri. We have labored in common with others to establish a system of public improvement, which commends itself to the approbation of the people in every part of the State; but we have hitherto left it with those more immediately interested to devise the ways and means of accomplishing the work. Nor should we have alluded to this subject now but that it is involved in another which concerns every part of our common country.

It is generally safe, and sometimes it may be a wise policy, to complete a system of public improvement by the use of credit; but we can imagine no case where it would be prudent to rely entirely on borrowed means in the beginning.

In conclusion, we are compelled to admit that since a more thorough investigation of the report of the Secretary of the Treasury, we regard the financial prospects of the current year as being much less favorable than we did at the beginning of last month; and we are persuaded that if the mania for excessive traffic and speculation continues unabated until the end of the year, a severe revulsion will be inevitable.

ARTICLE II.

Flax Culture.*

Preparation of the Land.—All authorities agree in the necessity of clearing flax land of weeds as perfectly as possible. It should be well drained of surface water, for the roots of flax often penetrate as deep as the length of the plant above ground, if the collar of the plant is not too wet. A light plowing should be given immediately after harvest, no matter what may be the soil. A

* In behalf of the agriculturists of the West, we thank the enterprising Editors of the "Louisville Journal" for the pains they have taken in collecting and arranging the useful information contained in the following article. And we beg to add that, though a political paper, we have found more well digested and useful information relating to agriculture in the 'Louisville Journal', for the last five years, than in all our other newspaper exchanges put together. We sincerely hope that others observing the success of this paper will follow its example in this department of literature.—*Sr. Ed.*

heavy stiff soil should be plowed up in ridges in the fall, in order to be exposed to the frosts of winter. About two weeks before the time for sowing the seed the land should have a deep plowing followed by harrowing and rolling. No matter how much labor may be bestowed on the land in making its tilth perfect, and in the destruction of weeds, the improvement and increase of the crop will abundantly pay. There is in fact no crop that will yield such returns to proper labor and management as the flax crop. No other product of land pays such a profit to well-directed labor, and it must always be remunerative, because the market has never been overstocked with the textile material of a flax crop. Even if an American crop were to glut the mills of America, England would readily purchase all that might not be needed for the American home market. But it cannot be too deeply impressed upon the minds of cultivators that flax land must be put in the best possible condition for inducing the long fibrous roots to penetrate the earth as deeply as possible. Lands which hold water at the distance of two or three inches from the surface make superior flax crops, but there must be no surface water.

Soils.—Sandy loams and alluvial soils, either natural or artificial, are the best for flax. But good crops are sometimes made in light and heavy clays, reclaimed marsh land, gravels, chalk, &c. An open soil through which water percolates readily is best adapted to the flax crop. He that would get a richly remunerative crop must command the favorable circumstances we have named. As no practical result has yet followed the attempt to extract sunbeans from cucumbers, no one need expect any rich returns from a flax crop on land that is not adapted to the plant, nor on land that is suitable, unless it shall be properly prepared, and suitably cultivated.

Seed. — If the object is to make a very fine flax, the Holland seed is the best. Riga seed is the best for a seed crop, since it may be made to yield abundantly of that article. The Riga seed is also best adapted for a variety of localities. It should be sown one year for seed, and this should be used the following year for a crop of fibre and seed. But seed foreign to the locality should be frequently resorted to because the seed soon degenerates. The farmers of Wisconsin and of Kentucky, for example, should exchange seed at least every alternate year. Great management is required in this department of flax cultivation. Whatever seed may be used should be carefully sifted in order to get clear of the germs of weeds. And when the land has been well prepared, and the seed is suitably selected and cleaned, at least *two bushels* of the latter should be sown broadcast by the hand, or by the broadcast barrow. It is better to sow too thick than too thin, as with thick sowing the plant grows long and fine, while thin sowing produces a plant full of branches, which yields seed freely, but makes a very poor fibre. The seed should be sown as *evenly* as possible,

so as to avoid the trouble of separating the various qualities of straw that would grow in a field irregularly sown. After the seed is properly sown, cover it *across* with a seed-barrow, as by this means the seed is spread more equally. Immediately after the harrowing use a light roller upon the land. The seed should be covered about an inch deep. The seed may be sown early in April.

As soon as the plants grow to the height of one or two inches, the field should be carefully weeded. This is done in Belgium by sending boys with coarse cloths wrapped around their knees into the field. They crawl along on all fours and pull the weeds. This method is found to be less injurious to the young flax, than when the weeders walk at the work. All the weeds should be removed before the flax reaches three inches in height. After that, it will weed itself, and no crop is as effective in cleaning land from weeds as flax.

Harvesting the Crop.—A diversity of opinions is entertained on this point. Many authorities think that the straw should be gathered while in a green state, before either fibre or seed is matured. We have carefully investigated the subject, and we are satisfied that the plant should be well advanced towards maturity, before it is cut or pulled. Mr. Wilson, in whose judgment we place a great deal of confidence, and who is the highest authority on the subject, is of opinion that the proper time for gathering the crop is when the straw has assumed a yellow color immediately under the branches, and when, on opening the capsule, the seed is found to be of a pale brown color. After the flax is pulled or cut, the handfulls are laid across each other, and afterwards bound up loosely in small sheaves, which are then stacked up in the best manner possible for the admission of a free circulation of air among the straw. After they are well dried, they are permanently stacked either in the field, or at the homested. Sometimes the seed is gathered before the permanent stacking. This is effectively and cheaply done by passing the straw between the ends of plain rollers which crush the capsule, but the straw does not enter the rollers. The seed is then winnowed, and the 'boll' is saved on account of its valuable qualities in connection with one of the recent discoveries in preparing the flax fibre, of which we shall hereafter speak. "Under favorable circumstances," says Professor Wilson, "we may expect an average crop to produce from 30 to 40 cwts. of straw, and 16 bushels of seed to the acre."

The processes which we have described have now placed in the hands of the farmer two valuable articles which will at any time command cash. The seed may either be fed to cattle or sold to the oil mills. The crop of seed per acre is worth twenty dollars, just double the present average quantity of flax seed per acre, now raised in this country. In America the fiber is foolishly and wastefully thrown away; in Ireland the seed crop is just as foolishly

thrown away. The most extended observations of facts show that both practices are foolish, for it is perfectly practical to gather both items of the flax crop from the same field. While we are pleading here that the American farmer shall double his crop of seed, and prepare his fiber for a cash market that stands ready and eager to take all he can make, the Royal Flax Society of Belfast is earnestly pleading against the foolish waste in Ireland, by which large sums of money are thrown away in neglecting the seed crop, when the waste does not in the slightest degree improve either the quality or quantity of the fibre. Lord Erne stated at the recent meeting of the Royal Flax Society, that the flax seed thus wasted in Ireland is worth £5 or twenty-five dollars p. acre. In the report of the proceedings, the following facts were developed: It cost the Earl of Erne

"No small trouble among his own tenantry to induce flax-growers to save even a portion of the flaxseed. The matter seems singular, but it is very true. In fact, we have the best reason for knowing that, of all the flax grown in Ireland, on scarcely a proportion of 5 per cent. is the seed saved. There have been reasons alleged to produce this seemingly criminal inertness, such as the ignorance of method and the want of markets; but it is hardly to be considered that in Ireland seed, if saved, could fail to meet with a sale, either for crushing or sowing. The people of the south and west of Ireland, incredible as it may appear, under the instructions of the society's teachers, are really making better progress towards the continental system of saving seed and straw than the farmers of Ulster; the people here are so wedded to old habits, and so tenacious of impressions once made. Let us now briefly glance at the loss that is caused by this criminal waste of valuable produce. The whole extent of land under flax this year was, as we learn by the report, 175,469 acres, which, taking off 5 per cent., using round numbers, and estimating the value of flaxseed at £4 an acre, shows a dead loss of something approaching £400,000, which next year may be probably calculated at above half a million. With such a loss before their eyes, and knowing that a market is never likely to be wanted for oilcake, it will be a proof of singular inaptness indeed if the flaxgrowers of the country do not turn their attention to the waste they are yearly committing, follow the advice of the Earl of Erne and the Royal Society, and put £4 or £5 an acre into their own pockets rather than allow it to be liquified in a boghole."

Now if these remarks are true of Irish flax culture, do they not strike severely at that absurd system of American farming which mismanages the flax crop so as to get only ten dollars' worth of seed per acre, when it is quite as easy to get twenty dollars' worth per acre and which, in addition to this deficiency, then throws away flax fibre which may be converted into fifty five dollars per acre? American farmers should awaken from this deplorable mis-

management. Every bushel of seed and every pound of fibre that can be raised will at once command a certain cash market at prices that will remunerate better than any other kind of farming.

Improvements in separating the Flax fibre.—We have often referred in these remarks to the great improvements that have been made in separating the flax fibre from the shive of the plant, by which an immense impetus has been given to flax culture, and the manufacture of linen fabrics. The old processes of water or dew-rotting were attended with a great deal of trouble, loss of valuable time, and uncertainty as to the proper time for removing the straw from the water. If it remained in the water too long, the fibre was weakened; if removed too soon the fibre could not be perfectly separated, and a great deal of it ran to tow in the heckling process. These difficulties undoubtedly were the main cause of the inattention to the crop which has characterised the farmers of this country. *But every difficulty in this important department has passed away through the agency of science and mechanical ingenuity.* In the first stages of these improvements the ancient, uncertain, and anxious labors of weeks dwindled down to days, and the latter have been reduced to hours in which there is neither anxiety nor uncertainty. These discoveries have given an immense impetus to flax culture as we have already shown, and this immense increase of flax culture is sufficient proof of the reality and value of the discoveries. It has already been noticed by the readers of our second article on this subject how rapidly the number of acres devoted to flax culture increased in Ireland after 1848. In that year, there were 53,866 acres of flax under cultivation in that country. In 1850, there were 91,040; in 1851, 138,619; and in 1853, 175,469. Let us now look at the cause of this immense increase of flax cultivation in Ireland. In 1848, Mr. Schenck, an American gentleman, introduced a vast improvement upon all former processes for steeping flax. His plan was to *expedite the fermentative or putrefactive stage, which was considered essential to the separation of the flax fibres from the woody structure.* It was known, that, at a temperature of from 85 to 90 degrees, the glutinous matter that held the flax fibre to the shive would commence fermentation, and Mr. Schenk proposed to expedite the flax straw into this fermentation by the use of hot water. His plan was highly successful. The Royal Flax Society, ever alive to improvements in all things pertaining to flax, at once commended the Schenck patent, and, under the auspices of that Society, twenty retteries, upon Schenk's principle, were soon under way. They prepared from 30,000 to 40,000 tons of flax annually. A great saving of labor and of time was effected, and the whole business was under the control of the operator. Instead of the labor and loss of time of from two to three weeks required under the old method, Schenck's plan accomplished the work for the fine varieties of flax in seventy-two

hours, and for the coarse qualities in ninety-six hours. It was found too that the yield of the fibre was increased in quantity. Experiments proved that the gain of fibre by Schenck's process, when compared with the old plan, was from 20 to 23½ per cent., and that the quality of Schenck's fibre was superior to that made by the old method. Abundant facts prove these points.

But there was a serious drawback in the improvement, great as the advantages were. It set up a putrefactive process, which loaded the air with disagreeable and noisome oders, and destroyed a material element of the flax crop. Mr. Schenck richly deserved all the prosperity he won by his scientific discovery. But a more recent discovery has thrown Mr. Schenck's system into the shade quite as much as his had thrown the old one. The more recent discovery makes a much greater saving of time and labor than Schenck's, and it raises revenue upon nearly the entire flax crop. In the horrible gasses which issued from Schenck's plan were wasted two tons out of every seven tons of straw, and this was a waste of a most valuable article of nutriment for cattle. The recent improvement to which we refer is known as Buchanan's patent. Professor Wilson describes the improvement:

"No sooner, however, had the spinners given their testimony in favor of Watts's fibre than another process was patented by Buchanan, also of Glasgow, which appears to be an improved application of the same principle as Watts', for the solvent power is clearly not due to the steam as made use of by him, but to the hot water occasioned by its condensation.

In this the steeping is effected by repeated immersions in a tank of heated water, arrangements being made by which the temperature is never allowed to exceed a certain degree—a point of great importance, both as regards the abstraction of the azotized extractive matter; and also the quality of fibre produced. It is well known that albuminous solutions, containing even a very small proportion of albumen (1 in 1,000), coagulate at a temperature of 180 degrees, and then become insoluble; and it is always considered that fibre is more or less injured if exposed beyond a certain high temperature. These two important points have been taken advantage of in Buchanan's process; the temperature of the steep liquor is kept within a certain range of temperature, and the operations both as regards time and produce, more satisfactorily performed. The process is quite *automatic*, thus saving labor and the risks consequent upon carelessness; and the mechanical arrangements by which it is effected are very simple and inexpensive. The flax straw is placed in an open vessel termed the steeping vat, having a false bottom; a boiler generates the steam required; and between these two is placed a suitable vessel, the condenser, of about the same capacity as the steeping vat, and communicating with that by a hot-water pipe, and with the boiler by a steam pipe. This center vessel or condensing chamber is

filled with water from the cistern, and steam is then blown in from the boiler. When the latent heat of the steam is absorbed, and condensation no longer takes place, the hot water is driven over into the steeping vat, and completely immerses its contents. The overflow pipe then conveys a portion into a bucket, which, overpowering the balance weights, descends, drawing a chain, which, being attached to the pullies fixed on to the cocks of the steam-pipe, and of the condensing pipe, reverses their action by cutting off the steam and turning on a charge of cold water into the condenser. The steam in the condenser is then rapidly condensed, and the liquor drawn back from the steep vat into which it had previously been forced. This completes the operation of immersion, which recommences immediately—for as soon as the overflow bucket has reached a certain point in its descent, it strikes against a pin, having a screw adjustment, which causes the valve at the bottom to open and discharge its contents into the discharge pipe. The bucket then relieved of its load, resumes its original position, the balance weights act on the pullies, which again reverse the cocks, cutting off the cold water sparge, and turning on the steam to the condenser. This is repeated as often as may be required.

So far as the experiments have gone, it has been found that by ten such immersions the whole of the coloring matter of the flax has been removed. These in practice would not occupy more than three or four hours. This, however, is subject to the test of the operations on a commercial scale which are now in progress in Scottland for carrying out the patent.*

By this process we have all the advantages obtained by Watts—economy of products—increased economy of time, only four hours being required instead of twelve—and, in addition, great economy of labor. Another great improvement is claimed by Buchanan; his method of drying the steeped straw preparatory to scutching. This is usually a tedious and costly process as regards labor and arrangements. The fibre, too, is to a certain extent liable to be injured by the necessary handling. The ordinary mode is to place the flax thinly spread between two wooden laths, which, when closed by means of hooks or rings over their ends, firmly bold the stems; about fifty-six of these are required for a cwt. of flax. They are then carried to the drying shed and suspended from frames, where they remain exposed to the action of the air until they are dry. The time required depends on the weather—from three or four days to as many weeks. In Watts's process, where steam is available, the process of manipulation is the same, but the drying is effected in a heated chamber in a much shorter time.

* The patent for the United States will be carried out by the American Flax Company, of which Mr. Thomas Kimber, Jr., of Philadelphia, is the managing director, to whom all applications in reference to it should be made.

Buchanan's method is entirely different. He proposes to effect the desiccation in the same vat in which the flax was steeped, by means of dry warm air, which is driven through it in unlimited quantities, at a very little expense. The air is readily obtained in the desired state by causing it to pass through porous earthenware pipes set across the lower part of the chimney, which while heating the air, deprive it of its moisture. These communicate on the one side with a pipe which conveys the heated air to the lower part of the vat containing the flax to be dried. This is all the arrangement needed. The blower drives the air through the earthenware pipes; its temperature is there raised, and moisture abstracted, and entering the bottom of the steeping vat, it comes in contact with the flax and passes through it, absorbing and carrying off the moisture, and leaving the flax in a perfectly dry state. It is then ready to be rolled and scutched. The patentee's experiments induce him to believe that by this process the entire operation of converting the straw into dressed fibre may be effected in the working day, or twelve hours; and, from the simple nature of the mechanical arrangements and of the materials required, a very moderate outlay would suffice for the formation of an establishment equal to the probable produce of a given district. The steeping process being entirely automatic, the cost of labor is very small indeed, and the whole expenses of the operation materially reduced.

The liquid which passes from Buchanan's steeping vat, instead of being a loathsome putrefaction, is as pleasant a beverage as a solution of gum arabic, and is highly nutritious. It is in fact liquid albumen. When poured upon the chaff from the "bolls" of the flax seed it is an invaluable food for cattle and for hogs, and is a clear gain of two tons of albumen or gluten for every seven tons of flax straw.

In the light of the facts we have presented on this great element of American agricultural wealth the American farmer may see his way clearly to prosperity. We feel humiliated in restricting the yield of the flax crop of the American farmer to 16 bushels of seed and 400 or 450 pounds of flax fibre per acre. These would be considered poor returns in Belgium, Ireland, and other flax countries. In those countries, the yield varies from 20 to 25 bushels of seed, and from 600 to 1,100 pounds of fibre per acre. But even the inferior amounts we have named for American farming make it much the most profitable crop that is known in this country. Flax occupies the land but a short time; and so far from exhausting the soil, it is the best crop to precede wheat. The seed is worth $20, and the fibre, even if the straw is sold to the owner of one of Buchanan's machines, is worth $14 per acre, and if separated by the cultivator is worth from $50 to $55 per acre, thus making an acre of flax equal to $34 or $75 per acre. And we have the authority of Messrs. Thomas Kimber, and C. Harts-

horne, of Philadelphia, for saying that they have made arrangements for purchasing every pound of flax fibre that may be raised in Kentucky. Upon its delivery in Louisville, these gentlemen, in behalf of the Fall River Linen Company, will pay cash for the fibre at the rate of $250 to $350 per ton, according to the quality of the article. We can assure Western farmers that they may fully rely on these facts.

It is seldom that an agricultural interest is important enough to demand the extended consideration we have given this subject. But we feel that this is one that offers such inducements to farmers that they cannot understand it too well, and from the works of Prof. Wilson, Fairbarn, and Deman, we have culled the valuable facts presented in this series of articles on the culture of flax. If Western agriculture responds properly to these facts, we shall feel that our labor has not been in vain, and we shall rejoice in knowing that we have contributed our share toward the development of a great Western interest.

ARTICLE III.

[From the Middleton News.]

Atmospheric Railway.*

I offer the following remarks on the application of a new method of using the Atmospheric Tube on a large scale, in order that it may lead thinking men to turn their attention to a plan which seems to promise favorable results, and that they may suggest such difficulties, and their remedies, as always arise with any new conception.

Before such a project could be matured, the tube for packages between Boston and Worcester will probably be in operation, and will suggest new methods of overcoming such difficulties as may arise.

The idea of being *shot* through a dark tube and coming out a mass of brains and batter, may perhaps take a less repulsive form when it is merely proposed quietly to glide through a lighted room with polished walls, as slowly and gently as may be desired, with such perfect command of the power as to stop, open the door and step out on the ground at any point of the journey.

The plan proposed is as follows: To lay a wooden pipe on an ordinary railway road-bed, between any two termini of two or two

* We copy the following article from the *American Railway Times*. We have formed no opinion as to the feasibility of the project. To say the least of it, however, it is ingenious; and shows that the speed and comfort of railroad traveling is beginning to be regarded as insufficient for the wants of the age.—EDS.

hundred miles distance from each other. This pipe to be about eight feet in height and nearly the same in width, either rectangular or circular or eliptical; to be built of staves of sufficient thickness, and banded with iron straps; alternate staves on the sides to be replaced with glass set in, like the dead lights of a vessel, and of sufficient number to give as much light as the windows of a rail-car. At distances of perhaps one thousand feet apart throughout the length of the tube, doors are to be cut which must hang on centers so as easily to open at all pressures, by being pushed by a person inside the tube, and to be large enough for a person to pass through them. Outside of these doors a box or chest is to be fastened on the tube—into this chest the door swings. —A valve, opening by means of a handle in this chest, is to be put on its side. This too is large enough for a person to pass it when it is opened, and by this means a person inside the tube can always pass out at any point along the line, and at any state of the vacuum, whilst the door, when shut, forms a part of the uninterrupted tube. This completes the tube and its adjuncts except at the ends and stations; and thus furnishes a simple line of transmission, accessible, not easily out of order and easily repaired, but having to counterbalance its simplicity, the disadvantage that any part out of order disarranges the working of the whole.

In the tube a piston is to work of the same area as the cross-section of the tube, and moving in the same way as the piston of a steam engine, or the dasher of a churn. In this piston a valve to be put to regulate the difference of pressure on the two sides, and also for ventilation; or a self-acting valve may be made for ventilation, and so set as always to cause a gentle breeze of fresh air through the cars. These cars would be light seats on wheels, and would be hooked on behind the piston. This completes the machine which may be operated in the best way that the experience of the Atmospheric railway, and of Mr. Richardson's express tube can teach us. This mode of conveyance is proposed because it is believed to be safer, more comfortable, cheaper, and more speedy than by railway.

Its safety.—It would be safer because the following sources of danger would be removed, collisions in front and rear, switches misplaced, running off the track, breakages of machinery; and from the nature of the case, road crossings, cattle, and draw bridges. Of these, which are the chief and almost the only source of danger on railways, two only can occur in a tube. That of breakage is very slight, as there is but one piece of machinery, the piston, and this may have several rings to reduce the risk. The accident of having a train run into one ahead of it which may be stationary, may be avoided as now by a lantern at night or by not allowing two trains in the same tube, or part of the tube, at the same time, and by another method to be described when speaking of the comfort of this mode of travelling. The annoyonces of dust, noise,

and jar, would be removed; the light would be the same as on rail-cars, and a continual gentle breeze would float through the cars and the ventilator, in the piston. The control which the valve in the piston would give, would enable the train to glide as slowly as a barge floating in gentle waters, or speedy and noiseless to shoot along swiftly as a ball from a gun.

Should any accident occur to the piston or cars, the doors and valves in the sides of the tube would furnish as ready an exit to the open air as the doors of a house, and when one of those valves would be opened, no train from the rear could possibly pass the station back of that on which the disabled train was standing. A very great difficulty with the Atmospheric railway was, that when a train was disabled, it was difficult to reach it; but in the proposed plan *unless the tube should be* injured, assistance cars could be conveniently sent to any point.

The economy of the project.—The expense of the woodwork of the tube for a single track, would be about $6,000 per mile, and with the glass and valves, would perhaps exceed $10,000 p. mile. The cost of transportation has two elements less than by rail. The weight of engine, tender and cars, and also the greater expense of maintaining a locomotive than a stationary engine, are both avoided. The cost of sending a train of passengers between New York and Boston, may be estimated as follows: 1,000 passengers, baggage cars, and piston, at 500 lbs. per passenger, is 500,000 lbs. weight, requiring a pressure of 8 lbs. per ton to move them on a level, or a pressure of 2,000 lbs. against the piston, which is less than three tenths of a pound per square inch. On the highest grade on this line the load would be increased to not quite one pound per inch on the piston, (and with this pressure the friction of the packing to prevent leakage around the piston, would be slight.) This would be the greatest vacuum required at any time, and the pumps would be arranged to act at any determined speed at this rarity of the air, and thus the velocity for the train in all parts of the tube, would be determined and might if required, be set at four miles just as well as at one hundred per hour.

To move the ton which represents the friction of the load assumed through 237 miles, would require with condensing engines, three or four tons of coal, say at an expense of $20. The ascent and descent here being equal the amount of power to raise the weight on the rising grade, is balanced by that weight on the falling grades.

The expense of running a train by rail being about $112 for this distance, and the total expense being $237, if the expense of conveying the load through the tube be increased four-fold to cover all contingencies; at this amount, or $80, it shows a much more economical method of attaining the object than by a railway. The items of repairs of tube, piston, &c., and maintenance against decay, may or may not be in excess, but the simplicity of the con-

trivance, the small number of moving parts, the lightness of the strain of the load on any one bearing point, thus allowing lighter bridges and roadway, will probably lessen these expenses, and a tube once laid and roofed in, will be as permanent a fixture as a station house through which the trains run.

Of the rates of speed attainable. — Any rate of speed below that at which air rushes into a vacuum, can be obtained, but for the present, limiting the speed to 100 miles per hour, it can be shown that to move at that rate between New York and Boston, two 100 horse-power engines would suffice at each end. The operation would be as follows: Suppose the train nearly ready to start; the regulator valve would be closed and in a few minutes vacuum enough formed to overcome the friction; the train would then start slowly, and regularly increase its speed up to 100 miles per hour. On grades rising, this speed would be reduced from the same cause as with the locomotive, on reaching the grade, the speed would again increase so much as to require the regulator valve to be partly opened or breaks used. It would probably be best to distribute the power so as to operate the high grades separately. The sleuing of the train either by brakes or by the valve would be easily managed, but the opening of the valve would cause a loss of vacuum and of the power to obtain it, and it is a point requiring some remedy. The stopping may be easily managed in several ways so as to reduce the speed as gradually as may be necessary. Although it might seem that since the moving power was not on board the train, danger might ensue should the engineer lose control, it will be perceived that no greater speed can be attained than that at which the pumps are regulated, be it one mile or one hundred per hour; that any accident to the train would cause retardation, that the only case in which control of the train could be lost, would be if the valve in the piston should get jammed fast, a case analogous to the regulator of a locomotive getting jammed open, and quite unlikely to happen, and impossible with two valves, and finally should the piston give way, the passengers would find themselves sitting in a lighted room with a violent gale blowing through it which they could avoid by going out the nearest door.

Leakages and Repairs. — With pressure of one lb. per inch, equal to a head of about two feet of water, the joints of the tube could be kept tight as well as a flume; if the outside were protected from wet and the iron bands made to key up. The valves on the sides, of india rubber or of metal, would screw down air-tight into their seats. For the expansion of the tube lengthways, slip joints or india rubber at the end of the staves might be used. The leakage of the leather collars of the pistons running on a greased surface, would be run at high velocities without heating. If the tube were laid dry and roofed, it would not require outside repairs, and the wearing of its inner surface would be slight, either from

the sliding of the piston or the rolling of the wheels, which would have india rubber tires. The only parts of the machine exposed to much wear would be the packing of the pistons and the boxes of the wheels.

The tube would require all roads to be passed over, or under it, and all streams to be passed beyond mast navigation or by high bridges. At important stations the train might be run out of the tube, especially if the power were distributed along the line, which it probably would be for local lines, and in such cases some method of backing the train would be desirable. This and other devices may safely be left to ingenious mechanics to supply, as the wants arise; as this communication is only intended to point out those features of the project which recommend it to attention, namely, its economy, safety and capabilities for speed.

T. McDonough.

ARTICLE IV.

Cost of Repairs of Locomotives.

BY ZERAH COLBURN.

The question is often asked by railroad men if an engine cannot be repaired and renewed so as not to become depreciated through constant and continued service. Undoubtedly it may, but which is cheapest; to renew all the parts of an engine when nearly all are worn out, or to purchase a new engine? A little consideration will give some force to this inquiry.

In the first place, master mechanics will admit, that, *in the manner* in which repairs are generally conducted on roads where from 6 to 8 cents per mile is allowed, an engine after twelve years use is sensibly depreciated in value, say one-half. The average run of passenger engines being say 25,000 miles per year, the repairs, at 8 cents per mile, amount in 12 years to $24,000, while the engine is $4,500 less valuable then when new. Thus, an engine costing $9,000, requires $28,500 to keep it good for twelve years, a sum more than *three times* its original cost; while its boiler sheil, outer fire-box, cylinders and frames, have not been renewed nor materially repaired. It cannot be said that the engine has been *renewed* three times as its most essential parts are left remaining. It is, however, proper to say that the tires have been renewed four or five times, and the *trucks* twelve times. The cost of these is perhaps $5,000 for the given period. There are very few of the remaining heavy parts which are renewed over

three times in twelve years; while several of the most important parts are not renewed at all. The plain inference is that repairs and renewals, by the manner in which they are conducted, cost much more than the orginal construction of the same portions of the work; perhaps twice as much, a proportion which, upon consideration, will be generally admitted as correct.

If the machine is so run that its entire construction decays at about the same time;—if it wears out twelve setts of trucks; four setts of tires; four setts of packing; and two setts of tubes and tube sheets, in twelve years, and if, which is probable, the boiler, frame and cylinders be worn out also at that time, what is left of the engine? If it can be again made good is it not *rebuilt*, and essentially a *new machine?* If rebuilt at the repair shop, and some of the older parts are worked in, does the engine when completed, cost less than a new one from an established builder; and considering the entire reliability of the latter, in every part, is any thing saved even in rebuilding? The question of keeping an engine *good*, assumes there will be no essential improvements, affecting the general construction of the engine, and this matter is not therefore considered. It is well worth considering however.

The necessary repairs are increased with the age of the engine, as successive parts are attacked, each year, which were not embraced in the renewals of the previous year. This is evident in reason, although there are several circumstances which, although they do not affect the principle, serve to conceal it. In the first place the repairs of the light engines built from eight to twenty years ago could not consistantly require the same outlay, per mile run, as the heavy engines of more recent construction. Such engines are generally considered, where they are owned, as not so well *worth* repairing as newer and larger engines, and hence are not the objects of as much expenditure for preservation. Again, such engines are but little used, being for the most part kept in ordinary, or for shifting out trains, ballasting, &c.

The example of the Baltimore and Ohio railroad, having the *largest* and the *oldest* equipments of engines of any road in America, may be useful in considering the cost of repairs. This road has, by its report of September 30th, 1853, 167 locomotives; 157 of which are running between Baltimore and Wheeling. Some of these locomotives are 19 years old, although the majority are of recent construction.

The following table shows the cost of repairs per mile, for each class, of each year's construction of engines in use on the "Main stem" of the Baltimore and Ohio railroad, during the years ending Sept. 30th of 1852 and of 1853. The repairs for 1852 did not reach a high figure, but the figures serve to show the gradual increase of cost of preservation as we go back to the older engines. The repairs for 1853 show this in a stronger light.

Year of Reception.	No. of Engines received during year.	Class. No. 1.	No. 2.	No. 3.	No. 4.	Average cost of Repairs per mile for year ending Sept. 30th, 1852.	Do. Do. for the year ending Sept. 30th, 1853.
						cts.	cts.
1834	2				2	1,88	6,64
1835	3				3	6,35	6,35
1836	5				5	4,01	6,15
1837	2				2	4,82	6,96
1838	6			3	3	3,65	6,38
1839	6			2	4	4,24	11,31
1840	2		1	1		21,62	6,00
1842	2			2		8,74	6;02
1844	4	4				5,82	22,02
1845	3	2	1	1		8,41	7,70
1846	8	6	1	1		11,92	10,18
1847	3	1	1	1		5,36	9,44
1848	11	8	2	1		6,40	18,90
1849	2	2				9,88	17,32
1850	6	6				4,51	13,22
1851	15	15				4,64	13,00
*1852	23	19		4		3,29	
1852	36	32		4			8,55
1853	43	37		6			†7,82

This table I have prepared with much care from the company's reports, and considering the extent of motive power to which it applies, and the time over which it extends, it is believed to be of considerable value as an illustration of the influence of age on repairs. Some facts may serve to place its deductions in a better light. The first class engine of 1853 is very much larger than the first class engine of 1848, and sustains much greater wear. Again, in 1853, the formidable passage of the 116 feet grades had begun to exert a new and marked influence on repairs. And, still further, the old repair shops had been destroyed by fire, and not only had new ones been built to replace them, but others had been built at other points, by which the repair force was divided, the facilities not so well developed, and the expense of repairs increased. The high price of iron and the "labor strikes" at Baltimore, last spring,

* Up to September 30th, 1852.
† Not including alterations of three new engines.

have both influenced the cost of repairs. The repairs of passenger engines have been influenced by the necessity of higher speeds, and by a general adaptation for burning *coke*, which has cost much money for arranging the engines, and in repairing for the increased destruction of the furnaces and tubes by reason of a more concentrated heat. A great many of the causes stated have operated especially against the engine delivered in 1852 and 1853.

It may then be stated, as a general principle, that the repairs of each year must not only embrace the renewals of previous years, but of parts not before renewed at all, so that the cost of repairs increases by an annual arithmetieal progression up to the time of the decay of the most enduring parts; when, with the usual mode of conducting repairs, a new engine becomes cheaper than rebuilding.

It is therefore an object in making repairs to bear in mind the probable duration of the most enduring parts, so that a large quantity of new work may not embarrass the final disposition of a *worn-out* engine. "No man putteth a piece of new cloth unto an old garment," &c.

The question which I have raised is not that of the propriety of rebuilding under any circumstances, but of rebuilding as a recovery from the effects of gradual and total decay. With some patterns of engines they well deserve rebuilding before they leave the maker's hands; while again, the adaptation of engines, or the results of a collision or explosion, may properly warrant a general rebuilding.

The cost of repairs of locomotives is influenced by many considerations. The physical features of the road, nature of traffic, character of wood, water and attendance, character of original materials of construction, mechanical arrangement of engine, &c., are all influential in the necessity for repairs. A track kept in good line and good grade; a business not beyond the proper capacity of the engines, either in weight or length of run; seasoned wood, clean water, skilful and careful engineers; the best quality of materials, especially in the boilers and furnaces, where renewal is attended with the greatest expense; the outside connected arrangement of locomotive, properly constructed; and, above all, a safe system of despatching trains, and safe roadway structures, are the most favorable points for economical repairs.

The cost of engine repairs on several roads are exhibited in the following list.

Name of Road.	Miles run.	Cost of Repairs.	Repairs p. mile run.
			cts.
N. York & Erie, 1852,	2,389,271	$203,312 48	8½
N. York & Erie, 1853,			

Union R. R.	114,825	15,795 86	13¾
Eastern Division	746,627	73,657 04	9⅞
Delaware	569,448	72,669 11	12¾
Susquehanna	703,384	74,055 21	10½
Western	656,225	52,467 09	8
Totals	2,790,509	$288,644 31	10⅓
Baltimore & Ohio, 1852,			
Main Stem	1,515,784	$73,078 45	4,8
Wash. Br.	102,133	8,259 21	8,1
1853. Main Stem	2,009,446	194,036 13	9,6
Wash Br.	191,382	15,376 18	8,0
Reading R. R., 1852,	1,517,931	99,027 40	6,5
Penna. R. R., 1852,	663,991	32,630 07	4 11-12
West. & Atlantic R. R. 1853,	264,485	12,387 79	4,7
Little Miami R. R. (Ohio)			
1852	507,731	46,917 94	11,5
1851	301,640	23,143 90	7,7
1850	274,303	26,181 06	9,5
1848	189,606	15,959 66	8,4

The repairs of engines of the Boston and Maine and Fitchburg Railroads, for the year 1852, were about 5 cents per mile run, each. Those of the Boston and Worcester road were about 8,4 cts per mile run. On the latter the engines had been previously suffered to "run down," and a greater expense than usual was incurred to restore them to a good condition.

In drawing any inference from the preceding table, some particulars of the age and extent of the respective equipments may be proper to be given.

The engines of the Philadelphia and Reading Railroad were delivered as follows.

4 3d class	in 1838	8 1st class	}	in 1847
2 2d "	" 1840	1 4th "	}	
2 3d "	" 1841	1 1st "	}	in 1848
2 1st " }	" 1842	3 2d "	}	
5 2d " }				
10 2d "	" 1843	3 1st "		" 1849
8 1st "	" 1844	10 1st "		" 1850
7 1st "	" 1845	4 1st "	}	" 1851
18 1st " }	" 1846	1 4th "	}	
1 4th " }		13 1st "		" 1852

Total 103 engines.

Pennsylvania Central Railroad.

9 engines	in 1849	3 engines	in 1851.
14 "	" 1850	17 "	" 1852.

Total 43 engines.

New York and Erie Railroad.

9	engines	previous to	1848	31	engines	in	1850
9	"	in	1848	53	"	"	1851
29	"	"	1849	11	"	"	1852

Total 142 engines on broad gauge, besides 8 engines on the Union Railroad.

The date of the reception of the Baltimore and Ohio Railroad engines has been previously given, the number of their engines being 167.

The transportation effected by the equipments of the different roads being different. has a separate influence on repairs in each case. Of the roads named, the *Erie* has the largest passenger traffic, which involves the heaviest repairs of engines. The Baltimore and the Ohio road has the most severe physical features, and although from this fact and the preponderance of the freight business, the average run of each engine is less in miles per year, there is no doubt but that each engine is subjected to as great influence of wear as upon the Erie road; the passenger business of the latter being excepted. The time during which the engines are daily under steam is as great on the Baltimore and Ohio road as on the Erie. A fair comparison of the expense of engine repairs would then be as follows; the average expense of repairs for each engine for the year ending September 30th, 1853, was, for the Erie road, $1,924; for the Baltimore and Ohio $1,254; for the Reading road [for the year 1852] $961 43.

The Baltimore engines are subject to heavier repairs on furnaces and tubes, owing to the use of coal fuel, but to much less expense in consequence of using the outside connected arrangement of engine, the cast iron slip tire [which saves the company $30,000 per year,] to the equal distribution of weight in the engines, and to a greater degree of plainness and simplicity of construction.

The Reading road, although doing an enormous business and subject to the expenses attending the use of anthracite coal, has adopted very nearly the same system of motive power; has its repair force concentrated at one point; and has the advantage of favorable grades, by all of which, its repairs, considering the age and service of its equipment, are very cheaply made. Both the Baltimore and Ohio and the Reading roads are of the narrow gauge, and the economy of its operation, taken with that of the outside connection, the cast iron wheel and tire, and the equal distribution of weight, are in accordance with the general conclusions which have before been made for this system of application of motive power.—[*Amer. R. R. Journal.*

MINES AND MINING.

PITTSBURG COAL TRADE.

By H. Haupt.

The coal trade of the city of Pittsburgh, and its vicinity, is one of the most important sources of its wealth, whether we regard it for its intrinsic value, or for its influence in sustaining the great manufacturing interests of that vast workshop, of which Pennsylvania is justly proud. It is yet in its infancy. The extent can hardly be estimated with accuracy. We may approximate to a judgment of what it will be in a few years, when the present system of internal improvements shall have fully developed the resources of the country, by a calculation of its present extent. Its adaptation to the manufacture of iron in all its forms, is just beginning to be felt. Its value for generating steam is hardly yet realized — and in this age of progress, when days and weeks are compressed into minutes, the value of this source of power, of the almost infinite millions of tons of coal in our western coal fields can hardly be appreciated.

It is difficult to get a precise measure of the coal trade of the city of Pittsburgh and its vicinity. Perhaps the most accurate way to make an estimate of the quantity and value of this trade will be to average it under its different heads of supply and use, and we will then have figures founded upon a statement of facts which will be easily understood by any person the least conversant with its use and the general result of which will commend itself to all. For this purpose the coal trade of Pittsburgh and its vicinity may be divided into four general classes:—

First, that which is used for domestic purposes.

Second, that which is used for manufacturing purposes.

Third, that which is used for generating steam on the boats, and in and about the city for steam engines.

Fourth, that which is exported.

First, then, that which is used for domestic purposes. This is supplied mainly by retail dealers, and is distributed among the people in carts and wagons from the pits in the neighborhood, and from *flat boats* on the Allegheny and Monongahela Rivers, in which it is brought to the city from a distance of five, ten and even twenty miles; and when I speak of Pittsburgh here, I mean it and the City of Alleghany and the villages adjacent for three or four miles round the junction of the Alleghany and Monongahela Rivers.

The population of this portion of country may be safely estimated at one hundred and fifty thousand persons. This, at the rate of five persons to each family [which is, I believe, the usual allowance] would make for the district thirty thousand families. I then assume that each family will burn three fires through the year [in this is included stores, shops, offices and all places of business, as

well as dwelling houses, and at this rate it would be perfectly safe to allow for each family four hundred bushels of coal per year. This estimate would make the consumption of coal for domestic purposes amount to the sum of twelve millions of bushels per year.

The next item, is the amount of coal consumed for manufacturing purposes. I give below the data upon which I found my estimate; and as I have taken considerable trouble with it, I think it may be relied upon as correct.

There are in the City of Pittsburgh and its vicinity seventeen large Rolling Mills, and these would consume while running, on an average fifteen hundred bushels of coal per day; which would give an aggregate of 25,500 bushels per day. And supposing each Mill to run 250 days in the year, the annual consumption would be [6.375,000 bushels,] six millions three hundred and seventy-five thousand bushels.

There are in the same bounds, twelve principal or large Foundries, and these with the engines used in them would consume about [150] one hundred and fifty bushels each per day, making a daily consumption of [1800] eighteen hundred bushels, and at 300 days per year would give a yearly consumption of [540,000] five hundred and forty thousand bushels.

There are twenty Glass Houses, each of which would consume about [100] one hundred bushels per day; making a daily consumption of [2000] two thousand bushels per day, and a yearly consumption of [600,000] six hundred thousand bushels.

These twenty engines and machine shops, which, with their engines, forge fires, &c., will consume each one hundred bushels per day, making a daily aggregate of [2000] two thousand bushels, and a yearly consumption of [600,000] six hundred thousand bushels.

There are five large cotton factories which consume yearly, about [100,000] one hundred thousand bushels.

The gas works of the two cities consume about [200,000] two hundred thousand bushels per year.

The public buildings, including hospitals, jail, penitentiary, courthouse, banks, churches, &c., consume about 200,000 bushels p. year.

The water works and Alleghany arsenal, will consume about [150,-000] one hundred and fifty thousand bushels per year.

There are then from one hundred to one hundred and fifty other steam engines used for various purposes, which it would be almost impossible to specify, for instance, for flouring mills, oil mills, saw mills, planing mills, tanneries, stone cutting establishments, &c., &c., which would consume each 20 bushels per day, or an aggregate of 3000 bushels per day, making a yearly consumption of [900,000] nine hundred thousand bushels.

Next we have the steamboats which daily leave the wharves of the two cities and consume coal. For these we may safely estimate that there are eight boats leave the wharf daily during seven months of the year, during which there is constant navigation of the rivers—and in this is included the various boats of all classes. During a large portion of the year there are this number of boats on the Ohio alone daily, some of which take as much as [1,500] fifteen hundred bushels each, so that this estimate is fully within the limits; and i

will be moderate to allow for each boat [500] five hundred bushels per day which makes a daily demand from this source of 4000 bushels, and for two hundred and ten days consumption it would require [840,000] eight hundred and forty thousand bushels per year.

By adding the foregoing amounts, we have as follows:

For Domestic uses	12,000,000
" Rolling mills	6,375,000
" Foundries	540,000
" Glass Houses	600,000
" Engine and machine shops	600,000
" Cotton Factories	100,000
" Gas works	200,000
" Public Buildings	150,000
" Miscellaneous Engines, &c	900,000
" Steamboats	840,000
Total for home consumption	22,305,000

Twenty-two millions three hundred and five thousand bushels.

The next item is the amount of coal exported; and that is made up of what is taken to Cincinnati, Louisville, New Orleans, and other places on the Ohio and Mississippi Rivers.—This is chiefly sent down in flat boats, which are floated down the Rivers in times of high water, each boat containing from eight to twelve thousand bushels, and drawing from seven to nine feet of water. During the last year a large amount of coal has been taken to Cincinnati in barges, towed by a steamboat. For a part of this we have an accurate account in the statement of the Monongahela Navigation Company [a copy of which I send you]. By it you will see, on page 9, that the amount of bushels of coal that was taken through locks in boats was [9,903,921,] nine million nine hundred and three thousand nine hundred and twenty-one bushels in the year A. D. 1852. This was all for export.—[That in boats is for city or home consumption,] which you will see amounts to nearly five million bushels, and which, of course, is a part of the former estimate for domestic consumption.

There is then a large amount of coal loaded below the locks, and of which we can have no official statement, and I suppose I will be below the amount when I say it will amount to four million bushels per year.—There is also some Pittsburg coal sent to Cleveland and Philadelphia, but that trade is yet in its infancy, and its importance will not be felt until, as I said before, the business of our railroads gets to be permanent and fixed, and then it may be almost beyond computation. At present, I suppose one half of a million bushels would cover the amount.

We have then the following amount:

Amount of coal consumed in and about the City of Pittsburg	22,305,000
Amount of coal exported from Pittsburg to other places	14,403,921
Total	26,708,921

[U. S. Mining Journal.]

THE COAL TRADE OF GREAT BRITAIN.

The London "*Times*" gives the annexed statement relative to the coal trade of the united kingdom of Great Britain. It will be interesting to those engaged in this trade on this side of the Atlantic :

"To such an extent has our coal industry been developed that at the present time not less than 37,000,000 of tons are annually raised, the value of which at the pit's mouth is little less than £10,000,000 at the places of consumption, including expenses of transport and other charges, probably not less than £20,000,000. The capital employed in the trade exceeds £10,000,000. About 400 iron furnaces of Gr. Britain consume annually 10,000,000 tons of coals and 7,000,000 tons of ironstone, in order to produce 2,000,000 tons of pig iron, of the value of upwards of £8,000,000. For the supply of the metropolis alone 3,600,000 tons of coals are required for manufacturing and domestic purposes ; our coasting vessels conveyed in 1850 upwards of 9,360,000 tons to various ports in the United Kingdom, and 3,350,000 tons were exported to foreign countries and the British possessions. Add to this that about 120,000 persons are constantly employed in extracting the coals from the mines, and that in some of the northern counties there are more persons at work under the ground than upon its surface, and some approximate idea will be formed of the importance and extent of this branch of our industry. The extent of the coal areas in the British Islands is 12,000 sqaure miles, the annual produce 37,000,000 tons; of Belgium, 250 miles, annual produce 5,000,000 tons : of France, 2 000 miles, annual produce 4,150,000 tons ; of the United States, 113,000 miles, annual produce 4,000,000 tons; of Prussia, 2,200 miles, annual produce 3,500,000 tons ; of Spain, 4,000 miles, annual produce 550,000 tons; of British North America, 180,000 miles, annual produce not known. Taking the British Islands alone, and dividing them into districts, we find the supposed workable area as follows, in acres :—Northumberland and Durham, 500,000; Cumberland, Westmoreland and West Riding, 99,600; Lancashire, Flintshire and North Staffordshire, 550,000; Shropshire and Worcestershire, 79,950; South Staffiordshire, 65,000; Warwickshire and Lecestershire, 80,000; Somersetshire and Gloucestershire, 167,500; South Wales' 600,000; Scottish coal fields, 1,045,900; Irish coal fields; Ulster, 500,000; Connaught 200,000; Leinster, 150,000; Munster, 1,000,000. Our exports, which in 1840 amounted to 1,605,000 tons, valued at £576,000, had increased in 1850 to 3,561,000 tons of the value of £1,284,000. In 1841 our exports to France were 451,300 tons ; to Holland,173,378 tons ; to Prussia, 116,296 tons; and to Russia, 77,152 tons. In 1850, they were to France 612,545 tons; to Holland, 159,953 tons; to Prussia, 186,528 tons, and to Russia, 235,188 tons.—[*U. S. Mining Journal.*]

GOLD MINING IN NEW MEXICO.

The *Santa Fe Gazette* has the following article on the subject of "gold mines and mining" in New Mexico:

"We have on two or three occasions recently referred to the Placer mines, and to some test experiments which were being made there. Since then we have heard enough to authorize us to state with certainty that the experiment so far has been completely successful, and that the prospects of an ample remuneration for an outlay of capital are most flattering. As the result of four days' operation and the labour of two mules, we have been shown gold to the value of about ninety dollars, which as all persons acquainted with the operations of the *towners*, as the clumsy mills in general use among the Mexicans are called, affirm, is not more than half to the actual amount of gold in the rock. It must be recollected, too, that twice the amount of ore [metal as it is technically termed] could be crushed, and every particle of gold separated in one hour by many of the crushers now in use in the United States, as has been operated upon to procure the gold we have mentioned above.

One very beautiful specimen, in weight 2 oz. 18 dwt. 1 gr., has been left with us, and is at the inspection of the curious in our office.

This experiment was commenced more to satisfy the proprietors of the mine whether they would be justified in an extensive outlay of capital and labor upon them, than to induce others to join them in the enterprize, and we have it on the best authority that such satisfaction is entertained with the experiments thus far, that a competent machine has been ordered from the States.

The body of mineral at the placer is inexhaustible, and of a richness rarely equalled. The opinion of one of the proprietors is, that with proper machinery the yield will be about sixty-six cents to the bushel, and we know that a mine in North Carolina is now being worked very profitably on a yield of sixteen cents to the bushel.

Another great advantage possessed by the placer mine over the quartz mines of California and elsewhere, is the greater softness of the ore. In fact, if, as we know by Commodore Stockton's certificates, one of "Cochran's crushing machines" is capable of pulverizing quartz and sandstone at the rate of three and a half tons per hour, we should be of opinion that the same machine would be able to crush from four to five tons of this ore in the same length of time.

We hope soon to see large operations at the placer, and confidently predict a rich return for any judicious outlay."

Professor J. J. Mapes on the Manufacture of Wrought Iron, Direct from the Ore.

Iron, as it exists in ores, is combined with oxygen in the form of oxide of iron, and the whole process consisted in the treatment of this ore, in various kinds of furnaces, by heat, so as to dispel the oxygen and form the molten mass composed of carbon and iron, and known as *cast iron*. Under this mode of treatment it is true that the oxygen may be got rid of, but so high a heat is required during the deoxydizing process that it can only be maintained by the presence of a portion of atmospheric air, and hence the surface of the molten mass was continually undergoing reoxydization, and this newly formed oxide combining with the impurities of the ore, causes much of its quantity to be converted into a slag. It also entangles itself with a quantity of carbon, and occasionally with slag and other impurities. When in its finished form, and delivered in pigs as cast iron, it was a combination or mechanical admixture of iron and carbon, and known under the name of *pig iron*. To transform this into wrought iron it was necessary to get rid of the carbon. This required a separate furnace, the use of new quantities of fuel, the wasting of new portions of iron as oxide, a large amount of power, a great expense for labor, and this second process for rendering pig iron into wrought iron was called *puddling*, and in this state Mr. Renton found the art of iron manufacture.

The idea of so treating the oxide of iron, or iron ores, as to deoxydizing them or separate from them their oxygen in the absence of atmospheric air, thus preventing the formation of new oxides, is not new. The proposition has often occurred, but has never been rendered practically applicable to its manufacture, until accomplished by the invention of Mr. Renton. The mode of operation may be thus described.

The ore is reduced by stamping to a powder, and after admixture with 20 per cent. of mineral coal, it is placed in the top of a chamber, from which descend tubes, and in which tubes this mixture is suffered to fall. The upper ends of the tubes are completely covered with the mixture. Their outsiders are surrounded with fire, or rather the excess heat of two furnaces after having performed other duties which I shall presently describe. The contents of the tubes are thus heated to such a degree as not to cause any melting of the particles of ore, or combination between them and the admixture of carbon. The oxygen, however, contained in the ore is found perfectly to combine with the carbon in the form of carbonic acid gas, which, when formed, expands five hundredths part of its bulk for each degree of heat added, and thus forces its way, by such expansion, through the interstices of the superincumbeut mass, and escapes into the atmosphere above. When it has been subjected to this treatment for a sufficient length of time to rid it of its oxygen, but not at so high a heat as to cause a coalescence between the particles of iron and the carbon, it is permitted to descend into furnace approximating to this chamber. This it does in the powdered form, but at a red heat, and if received on the hearth at a white heat, this heat is insufficient to

cause a melting of the particles of iron now freed from oxide as in the furnace formerly in use, but entirely sufficient to cause a gradual welding of these particles with each other, without being imbued with carbon, the heat being insufficient to cause combination with silex or other impurities which may be present. All these, however, from their specific difference of gravity and moderate degree of heat, simply being that required to weld the particles, are separated on this first furnace hearth. At a proper time it is thrown over to hearth *No. one*, after having there been separated from the mass of useless matter with which it descended from the tube, it is further petrified with the ordinary puddling manipulations, and brought out to be placed under the trip hammer, to be formed into blooms of pure wrought iron. The fires which supply these two furnaces after performing their duty there, are found to be entirely sufficient, by the judicious application of their waste heat, to act upon the tubes for the *deoxydization* of the pulverized ore, and thus no separate fire is required for this action.

You will recollect that cast iron is a mechanical admixture of carbon and iron. Wrought iron is the product after the separation of the carbon.

The process of Mr. Renton is such as to commence with the oxide of iron, to free it of its oxygen, not to combine it with the carbon, and deliver it as pure wrought iron.

The processes before his improvement contained material faults. The amount of heat required to melt the mass for the purpose of getting rid of the oxygen, at the same time opened the ultimate pores of the iron, causing it to receive the carbon, and thus the product was cast iron.

In Mr. Renton's process, the absence of atmosphere in the deoxydizing tubes renders high heat unnecessary, and only so much is required as will weld the particles when placed upon the furnace hearths. Thus he avoids all difficulties of the older processes, saves the useless expenditure of fuel, and produces at one operation the final result, only attainable in the ordinary way by two distinct expenditures of fuel, labor, &c.; and entirely obviates the formation of new quantities of oxide during the manipulation of the mass.

Iron prepared by this process has peculiar advantages for being made into steel; it cannot but form steel of very superior quality, and from what I saw, I cannot doubt that the quality of this product is superior to that usually offered in the market as wrought iron.—[*U. S. Mining Journal.*]

COMMERCIAL RECORD.

It will be seen from the following table that the receipts of produce have been very light during the month, and as usual at this season of the year, there is but little doing in any department of business.

Table of the Leading Articles of Produce received at St. Louis, from the 16th day of December, 1853, to 15th January, 1854 inclusive.

Flour, barrels,	4,444	Molasses, barrels,	802
Wheat, sacks,	38,450	Salt, sacks,	6,950
Do. barrels,	326	Do. barrels,	1,322
Corn, sacks,	11,069	Coffee, bags,	5,337
Oats, sacks,	19,288	Pork, barrels,	101
Barley, sacks,	1,240	Meak Bulk, pieces,	1,772
Lead, pigs,	1,181	Do. casks,	264
Tobacco, boxes,	21	Do. tierces,	361
Whiskey, barrels,	1,086	Lard, tierces,	1,006
Sugar, hogsheads,	3,243	Do. barrels,	156
Do. barrels,	1,079	Do. kegs,	18
Do. boxes,	2,259	Beef, barrels,	32
Do. Sacks,	1,121	Hides,	838

Duties paid on foreign imports at the port of St. Louis, from 16th December, 1853, to 15th instant, inclusive, $44,610 75.

No important changes have taken place in the prices of produce, either at home or abroad, during the month; but we remark that the changes which have occurred are generally in favor of the producers and holders.

Flour.—At the date of our last report we quoted country superfine at $5,37½ to $5,40; and extra $5,62½ to $5,75 per barrel. Owing to intelligence deemed unfavorable from the South and East, and to the difficulty of shipping, a decline of 25 to 30 cents took place about the 16th and 17th of December. This depression, however, lasted but a few days; and on the 28th sales of second brand city mills were made at $5,75 and $5,80 per barrel, and on the 29th a sale of extra was reported at $6,00 per barrel.

There has been scarcely any demand for shipping since the christmas holidays, but prices have nevertheless slightly advanced for home consumption. We now quote country superfine in lots of from 50 to 100 barrels at $5,75 to $6,00, and city extra at $6,50 to $7,00 per barrel.

At *New Orleans*, on the 13th instant Ohio flour was quoted at $6,-80, scarce.

At *New York*, on the 14th sales of State $7,93 to $8,00; Ohio and Southern $7,93 to $8,06.

At *Liverpool*, on 28th December, western canal flour was quoted at 37*s*. 6*d*.; Baltimore, Philadelphia and Ohio at 37*s*. 6*d*. to 38*s*.

Wheat.—We quoted wheat on the 15th ult. for good red and white at $1,10 to $1,16 per bushel. On the 16th there was a decline of about five cents per bushel; but prices rallied again in a few days; and have been tolerably uniform with a slight advance to the present date. Good red may now be quoted at $1,15 to $1,18, and prime at $1,20 per bushel, sacks returned. Nearly all the city mills have suspended operations.

At *New York*, on the 14th inst. sales of Genessee wheat at $1,92½ to $2,05 per bushel. Export demand large.

At *Liverpool*, on 28th December, white wheat was quoted at 10*s.* 4*d.* to 11*s.*; red at 10*s.* to 10*s*, 6*d.*

Corn.—We quoted corn, on the 15th ultimo, at 40 to 43 cents per bushel, sacks returned. From that date it began to decline slightly, and we notice small sales, on the 3d instant, at 37½ cents, sacks included. The article at this date is very dull, and we quote good yellow and prime white at 35 to 38 cents per bushel.

At *New Orleans*, on 13th instant, we notice a contract for 150,000 at 53 to 55 cents deliverable in March and April.

At *New York*, on the 14th instant, we notice sales of mixed at 89 cents, and yellow at 90 cents per bushel.

At *Liverpool*, on 28th December, white Indian corn is quoted at 46*s.*; yellow 45*s.*, and mixed 44*s.* 6*d.* for quarter.

Tobacco and Hemp. — There is not sufficient doing in tobacco to authorize quotations. The stock of hemp is estimated at about 1,300 bales: market quiet. The last sales quoted at $120 to $125 per ton. The following extract from Morris & Co.'s circular for December will show the state of the hemp trade at New York, at the close of this year.

"With a fair demand for American Hemp during the past month, the year has closed with better prices for this important Western Staple, than we have had occasion to report since 1849; while every thing promises well for the coming season, as far as it is, at present, possible to foresee.

The stock, as reported in our circular for December, consisted of:

Undressed - -	1134 bales	Dressed - -	454 bales
Arrived since -	2570 "	Arrived since -	632 "

The month's sales embrace 1869 bales undressed, at $170 a $185, (a very choice lot commanding $190); and 614 bales dressed, at $200 a $210 for medium; $215 a $220 for fine, and $230 a $250 for extra fine hand dressed, leaving our present stock—

Undressed - - 1835 bales | Dressed - - 472 bales,

held for outside, and advanced quotations. The receipts of American hemp at this market for the past three years have been as follows:

1851.	1852.	1853.
15.305 bales.	7,772 bales.	15,078 bales.

Russian Hemp. — In the absence of any receipts of importance to increase our stocks, prices have again advanced, the last sales having been made at $290, and the small quantity still upon the market is now held for $300. Yarns are scarce and in demand, and have sold as high as 14 c.

Imports of Russian hemp and yarns from January 1st to December 31st:

1853 - - -	635 tons hemp	- -	1228 tons yarns.
1852 - -	2718 " "	- -	1576 " "

The stock of foreign Hemp in London, December 1st, 1853, was 9,538 tons, against 12,774 tons, at the same date in 1852, and the price of clean Russia there, at our latest dates, was £36 against £38 a £39 at the corresponding period last year."

LEAD.—Prices have been quoted uniform since our last report. The quantity in first hands is estimated at about 25,000 pigs, last sales reported at $6,30 to $6,35.

HOGS AND PORK. — There has been but very little change in the price of hogs since the beginning of the season. Prices have at no time exceeded $,4,25, except perhaps in a few instances, for small lots of extraordinary quality. The last sale we find reported was of a lot of 300 or 400 head on the 13th instant at $4,25 to $4,30 per 100 lbs. dividing on 200 lbs. PORK, mess quoted nominally at $11,50 to $12,00 per barrel. At *New Orleans*, on the 1sth inst., buyers were offering $13,00 per barrel for mess deliverable in February, holders were asking $13,50 to $14,00. At *New York*, on the 14th, sales of mess reported at $14,00 per barrel.

FREIGHTS AND NAVIGATION. — Owing to low water and obstructions in river navigation by ice, freights have been irregular since our last report, and quotations could only be regarded as nominal. Indeed navigation has been suspended, except a few chance arrivals, since about the 20th December. The last arrival from the Missouri river was reported on the 18th December; the last from the Illinois and from Keokuk on the Upper Mississippi on the 20th; and the last boat from Louisville on the 22d of December. On the same day one boat arrived from Cap-au-gris. There has been no arrival from New Orleans since the 30th, and none from Cairo since the 6th instant. Since 11th inst. there has been no arrival from Alton, and the ferry boat which had continued to struggle with the floating ice until yesterday evening, is unable to cross to-day, the ice being closed across the river.

Coastwise and Foreign Freight. — We have no change to note in the rates of coastwise freight since our last report. We have quotations of freights from New York to foreign ports on the 13th instant. To Liverpool: Grain at 11*d.* to 12*d.* in bulks and ships bags. Cotton at 5-16 to 3-8. From New York to London: Wheat 15*d.*; Flour 4*s.* 9*d.*; Tobacco 35*s.* measurement. To Havre: Flour 95 cents per brl.; Wheat 24 cents per bushel. To California: Pork $3.50 per barrel.

Money and Exchange. — There is no peculiar feature to notice in the money market, and though not abundant, money may be regarded as in fair supply for the season. Sight exchange on New York continues unchanged at ¼ premium, and at par on New Orleans and Cincinnati. On the 13th instant, at New York, *Foreign exchange* was heavy, the supply of bills being larger than the demand. Sterling quoted at 109 to 109¼, and francs at 5.17½ to 5.20.

The gradual increase of about $1,000,000 a week, in the amount of loans by the New York city banks, commencing on the 12th of November continued to the 31st of December, when the amount for the week reached $90,115,549. There was but a slight increase in the loans for the week ending on the 7th instant; but an increase of $1,-977,235 in the amount of deposits; of $154,068 in the amount of circulation; and of $517,953 in the amount of specie. The following is a weekly statement of the condition of the New York city banks since the 3d of December, 1553.

	Loans.	Deposites.	Circulation.	Specie.
Dec. 10, 1853	86,708,028	57,739,076	9,075,704	12,493,760
Dec. 17, 1853	87,865,073	58,312,473	8,930,830	12,166,020
Dec. 24, 1853	88,766,402	58,154,302	8,872,764	12,074,499
Dec. 31, 1853	90,115,549	59,858,127	8,921,858	10,988,171
Jan. 7, 1854	90,133,887	69,835,362	9,075,926	11,506,124

National Finances. — There was redeemed of the United States loan from the 3d of December to the end of the month, $1,937,399,-70. Leaving the outstanding debt of the United States $54,398,757,-52 at the beginning of the current year. On the 30th of September, 1853, the balance in the treasury was $28,217,887 78, which had been reduced to $23,118,000 on the 26th December. The amount redeemed at the treasury in the last week of the month, was $491,-800.

The amount of coinage at the several mints during 1853, has not yet come to hand, but from what is known it may be set down at about $56,000,000. In matters relating to commercial finance, the New York city banks, the United States treasury, and the Mint, are to be regarded as important points of observation. But we should not confide too much in the favorable aspects which they now present. For if the excessive importations of foreign merchandize should continue, we are persuaded that it will not be many months before the banks will be compelled to return to the restrictive policy of last summer.

With the hope of adding to the usefulness of this department of our Journal, we have concluded to publish a semi-monthly table of prices of the leading articles of produce and imports at this market. And here we beg to remark that the "*Commercial Record*" is an experiment involving a considerable amount of labor, and as we have had no experience in collecting and arranging matter for such a department, we should be obliged to any of our commercial patrons if they would favor us with their views upon the subject. It may be that such a record though skillfully made up may not be regarded as useful; if so, our patrons will confer a favor by making known their opinion. We have no time to bestow upon unprofitable objects.

Prices Current of Leading Articles at St. Louis on the 1st and 15th January, 1853.

	JANUARY 1ST.		JANUARY 15TH.
Barley, p. bushel, sacks returned,	60 to 62½	Nominal	60 to 62½
Cattle, per 100 lbs.,	5.25 to 5.75		5.00 to 5.50
Do. extra	6.00		5.75 to 6.00
Coffee,	12 to 13¼		11¼ to 12¼
Corn,	35 to 37	Last sales	35 to 38
Flax seed, bushel, packages returned,	1.35		1.35
Flour, bbl., country & city superf.	5.75 to 6.00	Country superfine	5.75 to 6.00
do. city superf. & extra, small lots			6.00 to 7.00
Gunnies, 2¼ bushels, new,	13 to 14 c.		14 to 14½
Hay, prime Timothy, 100 lbs.,	75	Nominal	75 to 80
Hemp, ton,	$120 to 128	Last sales	1.20 to 1.25
Hides, dry, lb.,	12¼ to 12½	Nominal	12 to 12½
Hogs, for packing 100 lbs.,	4.00 to 4.10		4.00 to 4.25
Hogs, small lots to butchers,	4.25	No sales.	
Lard, No. 1 in barrels, lb.,	8 to 8¼	Nominal.	No sales.
Do. kegs,	9 to 9¼	"	"
Lead, lb., last sales,	6.35	Last sales	6.30 to 6.35
Molasses, gal.,	23 to 24	From store	24 to 25
Oats, bushel, nominal,	36		36½ to 37

Pork, Mess, barrel,	12 to 12.25	Nominal	11.50 to 12.00
Rye, bushel,	50 to 53	Sacks included	50 to 53
Salt, G. A., sack,	2.50 to 2.65	None in market.	
do. T. I., do.	1.45 to 1.50		1.50
do. Kenhawa, bushel,	50 c.	No sales reported.	
Sheep, head, as in quality,	2.50 to 3.25		2.50 to 3.00
Sugar, lb.,	3½ to 4½		3¾ to 4¼
Tobacco,	no sales	No sales.	
Wheat, bushel, sacks returned,	1.10 to 1.20	Sacks returned,	1.15 to 1.20
Whiskey, gal.,	20 to 20¼	Dull,	19 to 19¼

STATEMENT of the Foreign Value of Goods, Wares and Merchandize Imported at St. Louis, and the Duties Collected, in the year ending Dec. 31, 1853, *viz*

	Duties Value.	Dut. Cl'ted.
Amounts during the first quarter, ending March 31, 1853	156,183 17	46,862 79
Amounts during the 2d quarter, ending June 30, 1853	332,869 24	101,783 10
Amounts during the 3d quarter, ending Sept. 30, 1853	170,330 50	57,493 45
Amounts during the 4th quarter, ending Dec. 31, 1853	257,892 50	83,121 10
	$917,275 71	$289,260 44
Also, foreign value and the duties thereon remaining in public store on Dec. 31, 1853	14,107 70	14,107 70
Also, entered for consumption, constructively warehoused, as follows, viz:		
Various goods, wares and merchandize	42,611 00	13,676 70
Sugars and molasses (part to arrive)	269,144 00	80,740 20
Railroad iron do.	193,843 00	59,861 50
	$519,705 70	$168,386 10

Of the foregoing statement of duties collected, the goods, wares and merchandise were imported from the following places, as follows:

England	487,750 88	134,965 67
France	47,855 40	38,616 48
Germany and Holland	79,506 48	23,670 14
Spain and certain of her Dependencies	96,248 00	29,053 90
Manilla and Matanzas	78,985 00	23,695 50
Pernambuco and Bahia	124,606 00	37,381 80
Various other places and ports	2,329 95	1,876 95
	$917,275 71	$289,260 44

The general description of said goods, wares and merchandise, in reference to the various foreign ports and countries, were as follows, viz:

From England—Hardware, cutlery, railroad iron, earthen, glass and china ware, tin, iron and copper, including dry and fancy goods in a small ratio.

From France—Brandy, wines, cigars, cordials, sardines, &c, but chiefly brandies.

From Germany and Holland—Fancy goods, patent leather, toys, and other articles in great variety.

From Manilla, Matanzas, Pernambuco and Bahia—Principally sugars and molasses.

From Spain and Dependencies—The same.

From various other placesand ports—Comprise almost every article of trade.

Hospital moneys collected were as follows, viz:

1st	quarter	of	the year 1853	$526 28
2d	"	"	"	769 37
3d	"	"	"	715 63
4th	"	"	"	776 25
Total amount				$2,787 53

Amount collected from passenger steamers, and for licences to Pilots and Engineers, under the act of Congress, approved August 30, 1852 $2,176 50

Amount expended for the relief of sick and disabled boatmen 4,000 00

Tonnage of steam vessels belonging to this District and remaining December 31, 1853, 36,714 23-95 tons.

N. B. — It is worthy of remark, to state in reference to the seemingly small increase during the year just closed, that there had been an accumulated tonnage reported heretofore, which was not abated for the lack of official information as to their loss and the manner thereof, which was deducted at the close of this year, and amounted to upwards of 10,000 tons.

The duties collected in the years 1849 to 1853, inclusive, were as follows, viz:

1849	$73,970 87-100	1852	$290 168 85-800
1850	175,001 17-100	1753	289,260 41-100
1851	239,318 68-100		

N. B. — The falling off of duties collected during the year 1853, compared with 1852, is consequent upon the detention of sugar, molasses and railroad iron destined to this port, under warehouse and transportation entries, attributable to the recent sickness, &c., at the original port of entry, and the continued low stage of water. Otherwise the aggregate of duties would have been nearly $400,000.

SYNOPSIS OF STEAM VESSELS PERMANENTLY ENROLLED IN THE DISTRICT-PORT OF ST. LOUIS.

		TONS. 95THS.	TONS. 95THS.
Aggregate of tonn. in	1846	10,238 07	remaining Dec. 31, '53, 199 70
" "	1847	16,999 41	2,867 06
" "	1848	8,031 33	2,446 26
" "	1849	6,396 76	1,773 63
" "	1850	6,587 79	4,809 06
" "	1851	5,737 61	2,092 26
" "	1852	9,375 01	7,996 03
" "	1853	9,285 07	8,257 86
		72,651 20	30,442 01
	Balance shows those no longer enrolled		42,209 10
as reported 11th January, 1854.			72,651 20/95

BANK REPORT.*

Aggregate Condition of the Bank of the State of Missouri and its Branches on the 31st December, 1853.

DR.

Bills Discounted		$1,917,519 57
Exchanges Matured		294,181 66
Exchanges Maturing		1,700,761 32
Real Estate		116,151 35
Bills Receivable		45,598 81
James L. D. Morrison, Agent		27,694 50
Louis B. Parsons, Agent		14,837 06
Suspended Debt		77,941 35
Due from Banks		152,781 21
Bank Notes on hand		282,570 00
Specie on hand		937,835 80
		$5,567,872 63

CR.

Capital Stock owned by the State	$954,205 22		
Capital Stock owned by individuals	261,200 00	1,215,405 22	
Due Depositors			1,312,510 75
Dividends unpaid			1,234 86
Interest and Exchange	242,539 08		
Less Expenses	$20,140 71		
Less Protest account	21 40	20,162 11	222,376 97
Contingent Fund			99,879 50
Due to Banks			228,835 33
Circulation			2,487,530 00
			$5,567,872 63

St. Louis, December 31, 1853. — A. S. ROBINSON, Cashier.

Condition of the Bank of the State of Missouri, at St. Louis, on the 31st Dec., 1853.

DR.

Branch at Fayette for capital	$120,958 84		
" Palmyra "	120,058 84		
" Cape Girardeau "	120,058 84		
" Springfield "	120,058 84		
" Lexington "	120,058 84		$600,294 20
Bills Discounted			1,093,439 80
Exchanges Matured			246,019 84
Exchanges Maturing			1,246,219 33
Real Estate			53,186 00
Bills Receivable			45,598 81
James L. D. Morrison, agent			27,694 50

* We learn that dividends amounting to 17 per cent. have been declared for the year—7 per cent. for the six months ending June 30, and 10 per cent. for the 6 months ending 1st Dec., 1853.

Lewis B. Parsons	14,837 06
Suspended Debt	9,557 24
Due from Banks	90,847 57
Bank Notes on hand of Branches	265,000 60
Specie on hand	595,412 44
	$4,288,132 70

CR.

Capital Stock owned by the State	$954,205 22	
Capital Stock owned by individuals	261,200 00	$1,215,405 22
Due Depositors		1,090,448 46
Dividends unpaid		1,234 86
Interest and Exchange, surplus 30 June, 1853	74,845 03	
Profits past six months	$122,999 72	
Less Expenses	11,816 65	111,183 07
		186,028 10
Contingent Fund		99,879 50
Due to Banks		133,426 05
Circulation		1,561,710 00
		$4,288,132 79

St. Louis, December 31, 1853. A. S. ROBINSON, Cashier.

Condition of the Branch of the Bank of the State of Missouri at Fayette, on the 31st December, 1853.

DR.

Bills Discounted	$163,566 11
Exchanges maturing	115,243 62
Real estate	18,496 08
Suspended debt	1,845 00
Expense account	1,731 55
Protest account	12 25
Due from Banks	33,286 95
Specie on hand	88,639 11
	$422,820 67

Fayette, December 31, 1853. WILLIAM C. BOON, Cashier.

Condition of the Branch of the Bank of the State of Missouri, at Palmyra, on the 31st December, 1853.

DR.

Bills discounted	$68,202 33
Exchanges maturing	195,455 28
Exchanges matured	1,224 25
Real estate	15,093 28
Suspended debt	22,378 11
Expense account	1,512 24
Protest account	17 30
Bank notes on hand	76,510 00
Specie on hand	52,359 06
	$432,752 35

CR.

Bank of the State of Missouri for capital	$120,058 84
Due depositors	42,473 13
Due to banks	52,505 06
Interest and exchange	10,595 32
Circulation	207,130 00
	$432,752 35

Palmyra, December 31, 1853. S. D. SOUTH, Cashier.

Condition of the Branch of the Bank of the State of Missouri, at Cape Girardeau, on the 31st December, 1853.

DR.

Bills Discounted	$211,255 00

Exchanges Matured	44,937 57
Exchanges Maturing	37,397 15
Real Estate	5,165 14
Suspended debt	12,030 83
Expense account	1,331 60
Protest account	18 00
Bank notes on hand	11,570 00
Specie on hand	66,108 22
	$389,806 91

CR.

Bank of the State of Missouri for Capital	$120,058 84
Due Depositors	51,021 44
Due to Banks	27,906 41
Interest and Exchange	9,280 22
Circulation	181,540 00
	$389,806 91

Cape Girardeau, December 31, 1853. ALFRED T. LACY, Cashier.

Condition of the Branch of the Bank of the State of Missouri, at Springfield, on the 31st December, 1853.

DR.

Bills Discounted	$195,803 92
Exchanges Maturing	6,938 67
Real Estate	9,704 00
Suspended Debt	19,370 17
Expense account	1,220 10
Due from Banks	26,335 21
Bank Notes on hand	6,000 00
Specie on hand	55,586 64
	$321,858 71

CR.

Bank of the State of Missouri for Capital	$120,658 34
Due Depositors	36,989 00
Interest and Exchange	6,320 87
Circulation	158,590 09
	$321,958 71

Springfield, December 31, 1853. JAMES R. DANFORTH, Cashier.

Condition of the Branch of the Bank of the State of Missouri, at Lexington, on the 31st December, 1853.

DR.

Bills Discounted	$185,251 91
Exchanges Matured	2,000 00
Exchanges Maturing	99,481 27
Real Estate	14,506 85
Suspended Debt	12,760 00
Expense Account	2,529 17
Due from Banks	2,311 48
Bank Notes on hand	19,270 00
Specie on hand	78,730 33
	$416,841 01

CR.

Bank of the State of Missouri for Capital	$120,058 84
Due Depositors	83,411 65
Due to Banks	15,097 21
Interest and Exchange	11,323 16
Protest account	20 15
Circulation	236,930 00
	$416,841 01

Lexington, December 31, 1853. C. K. MOREHEAD, Cashier.

DEPARTMENT OF INTERNAL IMPROVEMENT.

We are indebted to the *American Railroad Journal* for the following tabular statement of the Railroads in the United States embracing the number of miles open, capital stock paid, funded debt, total cost, gross and nett earnings, dividends, price of stock, &c. It is possible that the figures may not, in every instance, be strictly correct; but as there is no higher authority on the subject of railroads in this country we feel authorized to adopt these tables as approximating sufficiently near the truth for all practical purposes. We regret that our space does not admit of the judicious and well-timed remarks which accompany these valuable statistics, in the 'Railroad Journal.'

Statement showing the number of miles of railroad in operation in the United States, January 1st, 1854.

MAINE.

Name of Roads.	*Miles open.*
Androscoggin	20
Androscoggin and Kennebec.	55
Atlantic and St. Lawrence	82
Bangor and Piscataquis	12
Ruckfield Branch	13
Calais and Baring	6
Franklin	9
Kennebec and Portland	69
Portland, Saco and Portsmouth	51
York and Cumberland	18
Total	335

NEW HAMPSHIRE.

Atlantic and St. Lawrence	52
Ashuelot	23
Boston and Maine	37¾
Boston, Concord and Montreal	92¼
Cheshire	54
Cocheco	28¼
Concord.	34½
Concord and Claremont	28¾
Contoocook Valley	14½
Eastern	16¾
Great Falls and Conway	12¼
Manchester and Lawrence	26
New Hampshire Central	25½
Northern	81¾
Peterboro' and Shirley	10½
Portsmouth and Concord.	47
Sullivan	24½
White Mountains	20
Wilton	15½
Total	646¼

VERMONT.

Atlantic and St. Lawrence	31
Connecticut and Passumpsic Riv.	61
Rutland and Burlington.	119
Rutland and Washington	18½
Rutland and Whitehall.	17
St. Lawrence and Atlantic	16
Vermont and Canada	47
Vermont Central	117
Vermont Valley	24
Western Vermont.	53
Total	503¾

MASSACHUSETTS.

Amherst and Belchertown.	20
Berkshire	21
Boston and Lowell.	27¾
Boston and Maine	83
Boston and Providence.	53¼
Boston and Worcester	68
Cape Cod Branch	28½
Charles River Branch.	12
Connecticut River	50
Dorchester and Milton Branch	3
Eastern.	58
Essex	21¾
Fall River.	42½
Fitchburg	67
Fitchburg and Worcester.	18
Grand Junction	6¼
Harvard Branch	1
Lexington and West Cambridge	6¾
Lowell and Lawrence	12½
Medford Branch	3¾
Nashua and Lowell.	14
New Bedford and Taunton	21½
Newburyport	14½
Norfolk County	20
Old Colony	45½
Peterboro' and Shirley	23½
Pittsfield and North Adams.	20
Providence and Worcester	44
Salem and Lowell	17½
Saugus Branch.	8
South Reading Branch.	8¼
South Shore.	11
Stockbridge and Pittsfield	22
Stony Brook	13¼
Stoughton Branch	4
Taunton Branch.	11¾
Vermont and Massachusetts	77
Western.	117
West Stockbridge	2¾
Worcester and Nashua.	45¾
Total	1091

RHODE ISLAND.	
Providence and Stonington	50
Total	50
CONNECTICUT.	
Collinsville Branch	11
Danbury and Norwalk	24
Hartford, Providence & Fishkill	50
Housatonic	74
Middletown Branch	10
Naugatuck	62
New Haven, Hartford & Springfield	62
New Haven and Northampton	45
New Haven and New London	50
New London, Willimantic & Palmer	66
New York and New Haven	63
Norwich and Worcester	66
Total	583
NEW YORK.	
Albany and West Stockbridge	28¼
Albany Northern	32
Buffalo, Corning and New York	100
Buffalo and New York City	91
Buffalo and Niagara Falls	22
Buffalo and State Line	69
Canandaigua and Elmira	49
Canandaigua and Niagara Falls	97
Cayuga and Susquehanna	35
Chemung	17¼
Eighth Avenue [New York city]	4½
First and Second Avenue	3½
Hudson River	144
Hudson and Berkshire	31½
Long Island	98
New York and Erie	454½
New York and Harlem	130¾
New York Central	518
Corning and Blossburgh	15
Northern [Ogdensburg]	118
Oswego and Syracuse	36¾
Plattsburg and Montreal	23¾
Rensselaer and Saratoga	32
Rochester and Lake Ontario	13
Saratoga and Schenectady	23
Saratoga and Washington	54¼
Sackett's Harbor and Ellisburg	18
Sixth Avenue [New York city]	2½
Skaneateles and Jordan	3
Third Avenue [New York city]	4½
Troy and Greenbush	6¾
Troy and Bennington	5¼
Troy and Boston	261
Troy and Rutland	32
Watertown and Rome	96
Total	2,355½
NEW JERSEY.	
Belvidere Delaware	41
Burlington and Mount Holly	6
Camden and Amboy	65
Morris and Essex	45
New Brunswick and Trenton	28
New Jersey	31
New Jersey Central	64
Trenton Branch	6
Union	33
Woodbury Branch	9
Total	328
PENNSYLVANIA.	
Alleghany Portage	36
Beaver Meadow	38
Blairsville Branch	3
Carbondale and Honesdale	24
Catawissa, Williamsport and Erie	25
Chestnut Hill and Doylestown	15
Chester Valley	21
Columbia Branch	18
Cumberland Valley	52
Dauphin and Susquehanna	16
Delaware, Lakawanna and West.	50
Erie and North East	19
Franklin Canal	26
Franklin	22
Germantown Branch	6
Harrisburg and Lancaster	38
Hazleton and Lehigh	10
Lehigh and Susquehanna	20
Little Schuylkill	20
Little Schuylkill and Susquehanna	28
Lykens Valley	16
Mahonoy and Wisconisco	17
Mauch Chunk and Summit Hill	8
Mill Creek	9
Mine Hill	12
Mount Carbon	7
Nesquehoning	5
Pennsylvania	256
Pennsylvania Coal Company's	47
Philadelphia and Columbia	80
Philadelphia and Reading	93
Phila., Germantown & Norristown	17
Philadelphia and Trenton	29
Philadelphia and Westchester	9
Phila., Wilmington & Baltimore	98
Pine Grove	4
Room Run	6
Schuylkill	13
Schuylkill Valley, incl. branches	25
Strasburg	7
Sunbury and Erie	20
Tioga	26
Trevorton and Mahonoy	15
Whitehaven and Wilkesbarre	20
Williamsport and Elmira	25
York and Cumberland	25
York and Whrightsville	13
Total	1,375
VIRGINIA.	
Appomattox	9
Chesterfield	12
Chesterfield and James River	4
Clover Hill	11½
Greenville and Roanoke	21
Deep Run	4
Manassas Gap	38
Orange and Alexandria	62
Port Walthal Branch	3
Petersburg	63
Richmond and Danville	84

Richmond, Fred. and Potomac	76¼
Richmond and Petersburgh	22
Sea-board and Roanoke,	80
South Side,	62
Tuckahoe and James River Branch	5¼
Virginia Central	107
Virginia and Tennessee	73
Warrenton Branch	9
Winchester and Potomac	32
Total	778¾

OHIO.

Bellefontaine and Indiana	118
Central Ohio	59
Cincinnati, Hamilton and Dayton	60
Cleveland, Columbus& Cincinnati	135
Cincinnati, Hillsboro & Parkersb.	37
Cincinnati, Wilmington&Zanesville	41
Cleveland, Painesville and Ashta	71
Cleveland, Zanesville and Cincin.	14
Cleveland and Pittsburg	100
Cleveland and Toledo, S. Divis.	87
" " N. "	60
Columbus and Xenia	55
Columbus, Piqua and Indiana	46
Dayton and Michigan	20
Dayton and Western	36
Dayton and Springfield	24
Findlay Branch	16
Greenville and Miami	27
Hamilton, Eaton and Richmond	45
Carrolton Branch	20
Iron	13
Little Miami	84
Mad River and Lake Erie	134
Mansfield and Sandusky	56
Newark and Mansfield	61
Ohio and Pennsylvania	187
Ohio and Mississippi	20
Ohio and Indiana	32
Scioto and Hocking Valley	44
Springfield and Xenia	19
Total	1,713

NORTH CAROLINA.

Gaston and Raleigh	87
Greenville and Roanoke	21
Wilmington and Raleigh	162
Total	270

SOUTH CAROLINA.

Abbeville Branch	12
Anderson Branch	10
Camden Branch	37
Charlotte and South Carolina	109
Columbia Branch	67
Greenville and Columbia	143
King's Mountain	22
Laurens	15
South Carolina	137
Wilmington and Manchester	161*
Total	713

GEORGIA.

Athens Branch	40
Waynesboro	51
Central	191
Eatonton	20
Georgia	171
La Grange	81
Macon and Western	101
Milledgeville and Eatonton	35
Muscogee	50
Rome	20
South-Western	50
Warrenton Branch	4
Western and Atlantic	140
Waynesboro'	51
Total	944

ILLINOIS.

Aurora Branch	13
Aurora Extension	86
Chicago and Mississippi	131
Chicago and Rock Island	140
Galena and Chicago Union	120
Great Western Illinois	81
Illinois Central, sixth division	60
" " Chicago branch	56
St. Charles Branch	7
O'Fallon's Coal Road	8
Illinois and Wisconsin	25
Terre Haute and Alton	30
Peoria and Oquawka	20
Total	777

INDIANA.

Columbus and Shelbyville	21
Evansville and Crawfordsville	34
Indiana Central	72
Indianapolis and Bellefontaine	84
Indianapolis and Cincinnati	90
Jeffersonville	77
Lafayette and Indianapolis	64
Madison and Indianapolis	86
Martinsville	27
New Albany and Salem	253
Newcastle and Richmond	27
Northern Indiana	113
Peru and Indianapolis	50
Shelbyville and Knightstown	27
Shelbyville Lateral	16
Shelbyville and Rushville	20
Terre Haute and Richmond	73
Total	1,134

MARYLAND.

Annapolis and Elkridge	21
Baltimore and Ohio	379
Baltimore and Susquehanna	57
Frederick Branch	3
Hanover Branch	13
Washington Branch	31
Westminster Branch	17
Total	521

MISSOURI.

Pacific	38
Total	38

KENTUCKY.

Covington and Lexington	47

* Part of this road is in N. C.

Lexington and Frankfort	29
Louisville and Frankfort	65
Maysville and Lexington	25
Total	166
TENNESSEE.	
East Tennessee and Georgia	82
Memphis and Charleston	50
Nashville and Chattanooga	158
Total	290
ALABAMA.	
Alabama and Tennessee River	50
Memphis and Charleston	43
Mobile and Ohio	33
Montgomery and Westpoint	88
Total	214
MISSISSIPPI.	
Raymond Branch	7
St. Francis and Woodville	28
Vicksburg and Jackson	60
Total	94
LOUISIANA.	
Clinton and Port Hudson	24
Mexican Gulf	27
Milneburg	6
New Orleans and Carol.	6
West Feliciana	26
Total	89
WISCONSIN.	
Milwaukie and Mississippi	110
Rock River and Union Valley	20
Total	130
MICHIGAN.	
Michigan Central	268
Michigan Southern	204
Pontiac	25
Total	497
DELAWARE.	
Newcastle and Frenchtown	16
Wilmington Branch	11
Total	27

AGGREGATE STATEMENT.

States.	Miles open.	Area in Sqr. miles.	Population in 1850.
Maine,	335	30,000	483,188
New Hampshire	646	9,280	317,964
Vermont	504	9,056	314,120
Massachusetts	1,091	7,800	994,499
Rhode Island	50	1,306	147,544
Connecticut	583	4,674	370,791
New York	2,355	46,000	3,097,393
New Jersey	328	8,320	489,555
Pennsylvania	1,375	46,000	2,311,786
Delaware	27	2,120	91,535
Maryland	521	9,356	583,035
Virginia	779	61,352	1,421,661
North Carolina	270	45,000	868,903
South Carolina	713	24,500	668,507
Georgia	944	58,000	905,999
Florida	—	59,269	87,401
Alabama	214	50,722	771,671
Mississippi	95	47,156	606,555
Louisiana	89	46,431	517,739
Texas	—	237,321	212,592
Arkansas	—	52,198	209,639
Tennessee	290	45,600	1,002,625
Kentucky	166	37,680	982,405
Missouri	38	67,380	682,043
Ohio	1,713	39,964	1,980,408
Indiana	1,134	33,809	988,416
Illinois	777	55,405	851,470
Michigan	497	56,243	397,654
Wisconsin	130	53,924	305,191
Iowa	—	50,914	192,214
California	—	188,982	164,000
	15,663	1,485,361	23,108,504

NAME OF COMPANY.		Miles open.	Capital paid in.	Funded Debt.	Total cost of road and equipment.	Gross Earnings for last official year.	Net Earnings for last official year.	Dividend for do.	Price of Shares.
Atlantic and St. Lawrence	Maine.	150	1,538,100	2,973,700	5,150,278	254,743	113,520	none	80
Androscoggin and Kennebec	"	55	809,878	1,016,500	2,064,458	140,561	80,053	none	30
Kennebec and Portland	"	72	952,621	297,800	2,514,067	168,114	100,552	none	41
Port., Saco and Portsmouth	"	51	1,355,500	123,884	1,459,384	208,669	.....	6	97
York and Cumberland	"	20	285,747	341,100	713,605	23,946	11,265	none	24
Boston, Concord and Montreal	New H.	93	1,649,278	622,200	2,540,217	150,538	79,659	none	35
Concord	"	35	1,485,000	none.	1,485,000	305,805	141,836	8	103½
Cheshire	"	54	2,078,625	720,900	3,002,094	287,768	55,266	5	38
Northern	"	82	3,016,634	.....	.....	328,782	163,075	5	51½
Manchester and Lawrence	"	24	717,543	.....	.....	.....	.....	6	89
Nashua and Lowell	"	15	600,000	none.	651,214	132,545	51,513	8	106
Portsmouth and Concord	"	47	.....	.....	1,400,000	.....	.....	none	.....
Sullivan	"	26	.....	.....	673,500	.....	.....	none	21
Connecticut and Passumpsic	Vermont.	61	1,097,600	550,000	1,745,516	.....	.....	none	33
Rutland	"	120	2,486,000	2,429,100	5,577,467	495,397	266,539	none	20
Vermont Central	"	117	8,500,000	3,500,000	12,000,000	.....	.....	.....	131½
Vermont and Canada	"	47	1,500,000	.....	1,500,000	Leased to the Vt. Cent.			98
Western Vermont	"	51	392,000	700,000	.....	Recently opened.		none	.....

RAILWAY SHARE LIST.

NAME OF COMPANY.		Miles open.	Capital paid in.	Funded Debt.	Tot. cost of road and equipment.	Gross Earnings for last official year.	Net Earnings for last official year	Dividend for do.	Price of Shares.
Boston and Lowell	Mass.	28	1,830,000	.....	1,995,249	388,108	130,881	7	93
Boston and Maine	"	83	4,076,974	150,000	4,092,927	659,001	328,215	7	102
Boston and Providence	"	53	3,160,390	390,000	3,546,214	469,656	227,434	6	85
Boston & Worcester	"	69	4,500,000	425,000	4,845,967	758,819	331,296	7	100
Cape Cod Branch	"	28	421,295	171,800	633,906	60,743	30,056	2	40
Connecticut River	"	52	1,591,100	193,500	1,801,946	229,004	72,028	5	55
Eastern	"	75	2,850,000	500,000	3,120,391	488,793	241,017	7	88
Fall River	"	42	1,050,000	none	1,050,000	229,445	99,589	8	100
Fitchburg	"	66	3,540,000	112,305	3,623,073	574,574	232,787	6	93½
New Bedford & Taunton	"	20	500,000	none	520,475	162,230	43,950	7	117
Norfolk County	"	26	547,015	819,743	1,245,927	67,251	23,415	none	60
Old Colony	"	45	1,964,070	282,300	2,293,534	322,213	101,510	none	91
Taunton Branch	"	12	250 000	none	307,136	137,406	24,399	8	.....
Vermont & Massachusetts	"	77	2,140,536	1,001,500	3,203,333	218,679	18,648	none	13¾
Worcester & Nashua	"	45	1,134,000	171,210	1,321,945	162,109	66,900	4	58
Western	"	155	5,150,000	5,319,520	9,953,759	1,339,873	683,194	6	97
Stonington	R. I.	50	.....	467,700	.....	240,572	110,892	.....	66
Providence & Worcester	"	41	1,457,500	300,000	1,731,498	253,690	139,514	6	95

Canal	Conn.	45	922,500	500,000	1,400,000	.....	.....	4	65
Hartford and New Haven	"	72	2,350,000	800,000	3,150,000	639,529	294,269	10	123
Housatonic	"	110	.....	.....	2,500,000	329,041	168,902	none	.....
New London, Wil. and Palmer.	"	66	558,861	800,000	1,511,111	114,410	.....	.....	39
New York and New Haven	"	61	3,000,000	1,641,000	4,978,487	806,713	428,173	7	101¼
Naugatuck	"	62	926,000	440,000	.....	.....	.....	8	.....
New London and New Haven	"	55	750,500	650,000	1,380,610	Recently opened.		none	52
Norwich and Worcester	"	54	2,121,110	701,600	2,596,488	267,561	116,965	4	58¼
Buffalo & New York City	N. Y.	91	900,000	1,550,000	2,550,500	Recently opened.		none	85
Buffalo and State Line	"	69	879,636	872,000	1,921,270	Recently opened.		.....	130
Canandaigua and Elmira	"	47	425,509	582,400	987,627	76,760	39,360	none	68
Erie, [New York and Erie]	"	464	10,000,000	24,003,865	33,070,863	3,537,766	1,691,623	7	79 25/100
Hudson River	"	144	3,740,515	7,046,395	10,527,654	1,063,659	338,783	none	68
Harlem	"	130	4,725,250	977,463	6,102,935	681,445	324,494	5	56
Long Island	"	95	1,875,148	516,246	2,446,391	205,068	44,070	none	30
New York Central	"	504	23,085,600	10,773,823	33,859,423	.....	.....	.....	114
Ogdensburgh [Northern]	"	118	1,579,969	2,969,760	5,133,834	480,137	195,847	none	30
Oswego and Syracuse	"	35	350,000	201,500	607,803	90,616	43,609	4	70
Plattsburg and Montreal	"	23	174,042	131,000	349,775	Recently opened.		none	.....
Rensselaer and Saratoga	"	25	610,000	25,000	774,495	213,078	96,737	.....	.....
Rutland and Washington	"	60	850,000	400,000	1,250,000	Recently opened.		.....	.....
Saratoga and Washington	"	41	899,800	940,000	1,832,945	173,545	135,017	none	30
Troy and Rutland	"	32	237,690	100,000	329,577	Recently opened.		.....	33
Troy and Boston	"	39	430,936	700,000	1,043,357	Recently opened.		none	.....
Watertown and Rome	"	96	1,011,940	650,000	1,693,711	225,152	116,706	8	92
Camden and Amboy	N. J.	65	1,500,000	.....	4,327,498	1,388,385	478,413	10	145

RAILWAY SHARE LIST.

NAME OF COMPANY.		Miles open.	Capital paid in.	Funded Debt.	Tot. cost of road and equipment.	Gross Earnings for last official year.	Net Earnings for last official year.	Dividend for do.	Price of Shares.
Morris and Essex	"	45	1,022,420	128,000	1,220,325	149,941	79,252	7	.....
New Jersey	"	31	2,197,840	476,000	3,245,720	603,942	316,259	10	131
New Jersey Central	"	63	986,106	1,500,000	2,379,880	260,899	124,740	3	.....
Cumberland Valley	Penn.	56	1,184,500	13,000	1,265,143	118,617	76,890	5	.....
Erie and North East	"	20	600,000	.....	750,000	Recently opened.		.....	125
Harrisburgh and Lancaster	"	36	830,100	713,227	1,702,523	265,327	106,320	8	52
Philadelphia and Reading	"	95	6,656,332	10,427,800	17,141,987	2,480,626	1,251,987	7	79
Phila., Wilmington & Baltim.	"	98	3,850,000	2,403,276	6,813,839	667,785	383,501	5	80
Pennsylvania Central	"	250	9,768,155	5,000,000	13,600,000	1,943,827	617,625	.....	94
Baltimore and Ohio	Md.	381	9,188,300	9,827,123	19,542,307	1,325,563	615,384	7	57¼
Washington Branch	"	38	1,650,000	.....	1,650,000	348,622	216,237	8	.....
Baltimore and Susquehanna	"	57	.....	.....	.....	413,673	152,536	.....	.....
Petersburgh	Va.	64	769,000	173,867	1,163,928	227,593	72,370	7	77
Richmond and Danville	"	73	1,372,324	200,000	In progress.	.....	....	.....	70
Richmond and Petersburgh	"	22	685,000	.....	1,100,000	122,861	74,113	none	40
Richmond, Fred. and Potomac.	"	76	1,000,000	503,006	1,531,238	254,376	113,256	7	100
South Side	"	62	1,357,778	640,000	2,106,467	62,762	.....	.....	.....
Virginia Central	"	107	1,400,100	446,036	In progress.	176,485	74,902	none	61

Virginia and Tennessee.....	"	60	3,000,000	1,506,000	In progress.	.....	.....	none	98
Winchester and Potomac.....	"	32	180,000	120,000	416,532	89,776	.....	12	.....
Wilmington and Raleigh.....	N. C.	161	1,338,878	1,134,698	2,965,574	510,038	153,898	6	.....
Greenville and Columbia.....	S. C.	140	1,004,231	300,000	In progress.	.....	.....	.....	.....
South Carolina.....	"	242	3,858,840	3,000,000	7,008,396	1,000,717	609,711	7	125
Georgia Central	Ga.	191	3,100,000	306,187	3,378,132	945,508	508,625	8	115
Georgia.....	"	211	4,000,000	1,214	.....	934,424	456,468	7½	.....
Macon and Western	"	101	1,214,283	168,000	1,596,283	296,584	153,697	9	100
South Western	"	50	586,887	150,000	743,525	129,395	71,535	8	.....
Memphis and Charleston.....	Ala.	93	776,259	400,000	In progress.	.....	.....	.....	.....
Mobile and Ohio.....	"	33	879,868	.....	In progress.	.....	.....	.....	.....
Montgomery and West Point ...	"	88	688,611	.....	1,330,960	173,542	76,079	8	.....
East Tennessee and Georgia ...	Tenn.	80	835,000	541,000	In prog.	.....	.....	.....	.....
Nashville and Chattanooga.....	"	125	2,093,814	850,000	In prog.	.....	.....	.....	.....
Covington and Lexington.....	Ky.	38	1,430,150	900,000	In prog.	.....	.....	.....	70
Frankfort and Lexington.....	"	29	357,218	.....	584,902	87,421	44,250	.....	80
Cleveland and Pittsburgh	Ohio.	100	1,239,450	1,371,000	2,963,756	194,429	123,306	6	93
Cleveland and Toledo.....	"	147	552,000	800,000	1,317,140	.....	.....	.....	92½
Cleveland and Columbus.....	"	135	3,027,000	408,200	3,655,000	777,793	483,454	12	124
Columbus, Piqua and Indiana..	"	46	.....	.....	2,000,000	.....	.....	.....	80
Cincinnati, Hamilton & Dayton	"	60	2,100,000	500,000	2,659,653	321,793	200,967	.....	106
Daytou and Western.....	"	40	310,000	550,000	925,000	Recently	opened.	.....	80
Little Miami.....	"	84	2,370,784	.....	2,634,157	526,646	314,670	10	113
Mansfield and Sandusky.....	"	.....	900,000	1,000,000	1,855,000	.....	.....	.....	.....
Mad River and Lake Erie.....	"	167	2,387,200	1,767,000	4,110,148	540,518	113,401	.....	95
Ohio and Mississippi.....	"	.....	.....	.....	In prog.	.....	.....	.....	87

RAILWAY SHARE LIST.

NAME OF COMPANY.		Miles open.	Capital paid in.	Funded Debt.	Tot. cost of road and equipment.	Gross Earnings for last official year.	Net earnings for last official year.	Dividend for do	Price of Shares.
Ohio and Pennsylvania	"	187	1,750,700	2,450,000	.....	Recently	opened.	.....	.....
Xenia and Columbus	"	54	1,092,137	119,500	1,257,714	Recently	135,363	15	116
Evansville and Illinois	Ind.	31	.....	.....	In progress	237,506	.....	.....	.....
Indiana Central	"	.....	.....	.....	"	.....	.....	.....	90
Indiana Northern	"	131	.....	.....	"	.....	opened	.....	115
Indianapolis and Bellefontaine	"	83	.....	.....	"	Recently	.....	.....	166
Lawrenceburg and Indiana	"	90	.....	.....	"	.....	.....	.....	77
Lafayette and Indianapolis	"	62	.....	.....	.....	.....	opened	.....	82
Madison and Indianapolis	"	88	1,650,000	750,000	2,400,000	516,414	268,075	10	70
Peru and Indianapolis	"	40	.....	.....	In progress.	.....	.....	.....	65
Terre Haute and Indianapolis	"	72	632,387	663,100	1,353,019	105,944	71,446	4	108
Chicago and Mississippi	Ill.	135	2,400,000	4,000,000	4,600,000	.....	.....	.....	.....
Illinois Central	"	.....	.....	.....	.....	.....	.....	.....	136
Galena and Chicago	"	92	1,932,361	500,000	In progress.	473,548	286,152	.....	122
Michigan Southern	Mich.	315	2,800,000	2,629,000	6,430,246	592,187	293,046	.....	126
Michigan Central	"	282	4,000,000	4,067,396	8,614,193	.....	.....	8	101
Pacific [1st Division]	Mo.	38	1,048,580	1,240,000	1,595,861	In progress.		.....	.....

JOURNAL OF MANUFACTURES.

MANUFACTURES vs. LAND SPECULATIONS.

The common sense of a community is the standard of its public justice. It is the court of last resort, as well as of original jurisdiction in all matters pertaining to the general welfare. For in a republican country, public opinion exercises more power than even "the Law and the Prophets."

To this tribunal we make our application in behalf of the claims of manufactures, for wrongs and injuries done them by Land Speculations.

If the public mind were fully enlightened, and aroused to a feeling of equity and good conscience on this subject, Land Speculations would be checked, and Manufactures promoted.

How can the public mind become enlightened, and aroused to a just appreciation of the rights of manufactures, and the wrongs of land speculations?

By indisputable facts and irresistable arguments. Let them be heard.

The wealth of a nation is based on agriculture and manufacture. Corn, cotton and iron are the chief products. They command money in their raw state; but their value is enhanced a thousand-fold in the refined condition of bread, clothing and iron utensils. Corn, cotton and iron are superabundant in the Mississippi Valley; but of the home manufactured productions of these elements of wealth, bread is the only one made to meet the home demand. Clothing and iron utensils are supplied mainly by foreign hands. Cotton is sent from Arkansas to Europe, and then and there manufactured into clothing, is resent to Arkansas. Iron is sent from Missouri to England, and then and there manufactured into cutlery, is resent to Missouri. Cotton, manufactured into clothing, and iron, manufactured into cutlery, is raised in value from as many cents to as many dollars per pound. Arkansas produces the best cotton, and Missouri the best iron in the world. The manufacture of the raw material into useful articles, on the spot of production, would pay immense sums of money into the hands of our mechanics. The freight, commission and duty, charged on the imported articles, would be a surplus profit to the producers and consumers, on the spot of production, provided the cost of manufacturing was equal east and west. The duty on imported articles, although at first an advantage to the manufacturer, is finally a more important advantage to the owners of producing lands; and a still more important and general advantage to the consumers of manufactured articles; for, although the profits raised by duty incite capitalists to invest their funds in manufacturing establishments, yet it at the same time incites competition, subdues monopolies, concentrates and irradiates trade at com-

manding points in the country, produces a vast superabundance of substantial and highly finished home made articles, turns the balance of supply and demand in favor of home; and instead of enslaving the people of the country as borrowers, tax payers, and beggars of Europe and the Atlantic coast, it frees them from the bondage of their bonds, draws the money of foreign lands directly in their own hands, and makes other portions of the world tributary to their own prosperity.

The state here pictured, should now be realized. Why is it not?

Why are our railroads languishing and almost begging for support?

Why are our people borrowers of, and tax-payers to, European sovereigns—aye, dependant on them for railroad iron, and even for personal clothing?

Why are our merchants paying tribute to the merchants of the East?

Why, on the contrary, are not the merchants of the East paying tribute to the merchants of the West?

Why do the merchants of the West continue bond merchants?

Why do not the merchants of the West become merchant princes?

Among many reasons, Land Speculation is the main.

Infatuated with a passion to dissipate their means, by investing them in wild and unproductive lands, they bury their talent in the ground. Capitalists, mechanics, and even the farmers themselves, catch the contagion of the speculating fever. They stop discounting, building, farming; check produce, improvements and finances, waste their time and money, and even encumber productive property, to indulge in fancied and unrealized prices of real estate.

This course is ruinous, and worthy only of prodigal sons, yielding but "husks which the swine do eat."

If the millions of dollars which have been squandered in land warrants, land certificates and land speculations in Missouri within the last year, had been judiciously invested in manufacturing establishments; these millions of dollars would have circulated freely in the legitimate business of the community. The farmers, mechanics, merchants and railroad companies, would have enjoyed easier and more independent circumstances; and the fortunes of the people, instead of descending towards a crisis, like that of '41, would have transcended the prosperity of '52.

These millions of dollars, would soon bring millions of dollars more to purchase the products of the manufacturing establishments, in which the original millions were invested, after the expenses were met by the supply of our home demand; and this dividend of 100 per cent. would be apportioned out through the community. The farmers would obtain their shares, by the extraordinary demand for food, the mechanics, by the extraordinary demand for labor, and the merchants and bankers, by the extraordinary demand for exchange.

Soon again millions of dollars more would come, and flow into the hands of our farmers, mechanics, merchants and bankers.

Tide after tide of prosperity would set in, till Missouri might command the active and productive internal wealth of France or of Great Britain.

In view of these facts, will the people of Missouri remain dependant on Europe, mere borrowers, tax-payers and beggars of the merchant princes of the East, when they might devise and establish a public policy of manufactures, which would not only free them from the bondage of eastern financial tyranny, but also even make those princes tribute payers to the prosperity of Missouri?

May not a strong moral force be raised to subdue and extirpate the fatal epidemic of land speculation—a pestilence worse than the cholera?

May not millions yet and soon be raised for the cause — the glorious cause of manufactures—the corner stone of civilization—the basis on which civil and religious liberty, may rear their temples of justice and of devotion?

May not a strong — an irresistable feeling of patriotism be aroused to relieve the manufactures of Missouri from every — the least—burden of taxation?

Will not every son of this central State of the Union strive to make it outshine its sister stars, in the brilliancy of its internal wealth?

Cannot the *Geological Survey* be stimulated? Cannot a *Statistical Bureau* be established? Cannot a *School of Mines* be founded? And cannot all these engines of prosperity be made to accelerate the movements of the trains of manufactures? And will they not invest the State of Missouri with the glory of scientific light, and of political fame as well as of financial prosperity?

"'Tis a consummation devoutly to be wished."

'Tis a consummation that surely may be won.

Extensive means must be accumulated, a wise and liberal policy pursued, and the end is at hand.

The Railroad Companies of Missouri alone, with a portion of their $8,250,000 of State Bonds, and a few legislative privileges, could make all the iron they want, being 100 tons per mile, for their 1,200 miles of Railroads, amounting to 120,000 tons of iron, at $4,500,000, as estimated on the Renton Process; while at the present price of iron—say $75 per ton—the same amount of iron would cost $9,000,000.

And after supplying themselves, they might sell their manufacturing establishments at an additional profit.

Cotton goods, iron wares and other kinds of merchandize could be manufactured by individual enterprise, private partnership and corporate bodies to supply the demand, for their respective goods, wares and merchandize, not only of Missouri, but also of the whole country from the Falls of St. Anthony to the Gulf of Mexico.

The means and spirit to command success in this sphere of independence will be represented more fully in future articles.

But as a movement has lately been made in Ohio, to advance the prosperity of iron manufactures, we here quote the notice of it published originally in the *Cleveland* (Ohio) *Herald*, and quoted by the *Mining* (New York) *Magazine*, from which we quote:

LAKE SUPERIOR WROUGHT IRON MANUFACTURE UNDER RENTON'S PROCESS.

Renton's new process for making wrought iron direct from the ore, we are pleased to learn is continuing to work with increased success. A quantity of the Lake Superior ore was sent by the Cleveland Iron Company to Cincinnati, to be manufactured into iron by the new process in a furnace built by W. C. Davis & Co., under the superintendence of the Patentee.

On Thursday the trial was made, and in six hours produced 1,249 lbs. of blooms from 2,436 lbs. of ore; a portion of the iron was rolled into bars, producing an article remarkable for toughness. A piece of 1 1-4 inch round bar was bent over cold under a 6,500 lb. hammer, and so flattened down that the two inside edges came completely together all the way, without showing the least crack or break on the end. This is one of the severest tests, and none but very good iron can stand it. A portion also rolled very well into wire rods.

We have the best authority for saying that on Saturday Mr. Renton's furnace made in nine hours and twenty minutes 2,470 lbs. of blooms out of 5,860 lbs. of ore, chiefly of the Ohio and Virginia limestone ores, 1,566 lbs. of which, however, was the Lake Superior ore, mixed with a portion of the Ohio and Virginia, which yielded well and worked very fast, turning out about 400 lbs. per hour, and which made very tough iron. This process economizes fuel, as by measurement it only takes one and a half tons of mineral coal to make a ton of bloom. The Ohio ores by this mode will yield about 40 per cent., and the Lake Superior ore from 50 to 60 per cent. These statistics show this new process to be a very important improvement in the manufacture of wrought iron, a vast saving being made in substituting mineral coal or wood for charcoal, which must bring into requisition vast quantities of lands that lay useless with the wood swept off for charcoal, although abounding in bituminous coal, which could not be used for working the hematite ores. The main features of this improvement consist in reducing the cost of a ton of iron, improving its quality, saving the cost of the pig metal process, and consequently a large amount of capital requisite to work the blast furnace, this mode requiring comparatively but a small outlay.

The cost of manufacturing one ton of iron from Lake Superior ore, at this point, we give as follows:—

Labor of three men	$6 00
Two tons coal, $2 50	5 00

Hammering into Blooms	1 00
Burning and stamping ore	1 00
Filling tubes	25
Cost of power	1 50
Making into muck bar	75
Including all contingencies—merchantable bar	6 00
	$21 50
When the Canal at Sault Ste. Marie is completed, and Railroad from the Mines to the Lake, two tons of ore, which will make more than a ton of iron, will cost $6 per ton	12 00
Total	$33 50
Present value of Iron per ton	80 00
Net profit	$46 50
Additional, for present cost in transportation of the ore	12 00
Net profit	$34 50
Cost of the ore made into Blooms when canal is finished	26,75
Present cost added	12,00
For one ton Iron Blooms made at this point	$38,75

These figures may be applied as a basis of calculation for investments in the iron manufacturing business at St. Louis, with a liberal margin for increased profits, for although coal is not now so cheap at St. Louis as at Cleveland, yet the position occupied by St. Louis to command the iron trade of the United States is far superior to that of Cleveland with her Lake Superior ore, as St. Louis is within 80 miles of the Iron Mountain of Missouri, while Cleveland is over 500 miles from the Iron Mountain of Michigan.

The cost of ore, to make a ton of iron, is now at Cleveland	$24.00
The cost at St. Louis	12.00
Surplus profit at St. Louis	$12.00 p. ton.

But it is said that the ore will in time be brought to Cleveland at greatly reduced rates. Grant it, and the St. Louis and Iron Mountain R. R. will work a similar result for St. Louis.

And finally not only Missouri but Illinois also will easily supply St. Louis with the desired coal in abundance.

MISSOURI IRON.

The following is a statement of shipments of iron made at Ste. Genevieve, as furnished us by Mr. John Ziegler, the agent of the Iron Mountain and Pilot Knob Companies, from the 1st of June last, up to the present month. We regret that no statistic has been kept of other shipments made at this place, as we are unable to give a full and complete statement of the lead, white sand, lime and the agricultural productions of this and the surrounding counties.

It is well known and established fact, and generally acknowledged by business and steamboat men, that Ste. Genevieve is the largest and most extensive shipping point on the river between St. Louis and Memphis. We are fully prepared to substantiate and prove beyond all shadow of doubt the correctness of this statement.

PIG METAL.

Up Ohio river	2,119 tuns.
To St. Louis	1,317 "
Total,	3,436

BLOOMS.

Up Ohio river	11,097	pieces—	1,313,857 lbs.
To St. Louis	4,089	"	691,923 lbs.
Total	15,185		2,005,780 lbs.

There is at the landing over 3,000 tuns pig metal, and 400 tuns blooms, which is all sold and will be shipped as soon as freights are reasonable.—[*Plaindealer*, 24. *Dec.*, '53.]

CAPITAL INVESTED IN MANUFACTURES IN THE U. S.

The entire capital invested in the various manufactures in the United States, on the 1st of June, 1850, not to include any establishments producing less than the annual value of $500—

Amounted in round numbers, to	$530,000,000
Value of raw material	550,000,000
Amount paid for labor	240,000,000
Value of manufactured articles	1,020,000,000
Number of persons employed	1,050,000

LITERARY DEPARTMENT.

RENÉ.

FROM THE FRENCH OF CHATEAUBRIAND.

(*In Continuation.*)

BY THE JUNIOR EDITOR.

'Venerable and smiling Italy offered me innumerable masterworks of art. With what holy and poetic awe I wandered through those vast buildings by the fine arts consecrated to religion! What a labyrinth of columns! What a succession of arches and of vaults! How sweet are those sounds one hears among the domes, like the roar of the waves on the ocean, the murmur of the winds in the forest, or the voice of God in his temple! The architect embodied, as it were, the ideas of the poet, and made them touching to the senses.'

'In the meantime what have I learned even with so much trouble? Nothing certain among the ancients, nothing beautiful among the moderns. The past and the present are two imperfect statues: the one has been all marred by the wreck of ages; the other has not yet received its perfection of the future.'

'But indeed, my old friends, you above all, dwellers in the desert, are you not surprised that, in this recital of my travels, I have not once entertained you with the monuments of nature?

'One day I was standing on the summit of Etna, a volcano which burns in the center of an island. I saw the sun rise from the vast expanse of the horizon below me, Sicily contracted as a point at my feet, and the sea unrolled far off in the distant space. In that lofty view of the scene around me, the rivers seemed to me only like geographical lines traced on a map; but, while on the one side my eye perceived these objects, on the other it plunged in the crater of Aetna, where, in the interim of the ebullition of black vapor, I discovered its heart on fire.'

'A young man full of passions, seated on the mouth of a volcano, weeping over mortals whose dwellings beneath his feet he could scarcely see, is it not doubtless, O venerable men, an object worthy only of your pity; but, whatever you may think of René, this scene presents to you the picture of his character and his existence; it is thus that all my life I have had before my eyes at the same time a world vast and inscrutable and an abyss yawning at my side.'

Pronouncing these last words, René was silent, and fell suddenly in a revery. Father Souel looked at him with astonishment; and the old blind Sachem, who heard the young man speak no more, knew not what to think of this silence.

René had fixed his eyes on a band of Indians who were crossing the prairie at leisure. Suddenly his countenance was changed, tears flowed from his eyes; he exclaimed:

'Happy Savages! Oh! that I could enjoy the peace which you always possess! While with so little satisfaction I ran through so many lands, you, seated quietly under your oaks, you let the days unnumbered flow along. Your thought was only for your wants, and you arrived, better than I, at the result of wisdom, like a child between sports and sleep. If that melancholy which produces excess of happiness sometimes reaches your soul, you soon spring from that transient sadness, and your glance raised toward heaven seeks with solicitude a mysterious charm, which soothes the poor savage.'

Here the voice of René again ceased, and the head of the young man fell upon his breast. Chactas, stretching out his arm in the darkness, and taking the arm of his son, said to him with a troubled voice: 'My son! My dear son!' At these tones the brother of Amelie coming to himself again, and blushing at his agitation, begged his father to pardon him.

Then the old Indian said: 'My young friend, the movements of a heart like thine, know not how to be uniform; only subdue that nature which has already made you so unhappy. If you, more than any other, suffer the ills of life, it need not surprise you: a large soul should contain more sorrow than a small one. Continue thy recital. Thou hast led us through one portion of Europe. Make us acquainted with thy home. Thou knowest that I have seen France, and what ties have bound me there; I would love to hear you speak of that great chief,* who is no more, and whose glorious cabin I have visited. My child, I see no more, except by memory. An old man with his memories is like a dying oak in our woods: the oak is no longer adorned with its own foliage, but its naked form is sometimes covered with strange plants which grow on its aged branches.'

The brother of Amelie calmed by these words, resumed thus the history of his heart:

* Louis XIV.

'Alas! my father, I am unable to entertain you with that great era of which I saw only the end in my infancy, and which was no more when I returned to my native land. But a change more astonishing and more sudden has not occurred with any nation. From the pride of genius, respect for religion, dignity of manners, there was a universal and rapid fall to meanness of spirit, to impiety, to corruption. It was wholly in vain that I had hoped to find at home some gentle spell to calm that restlessness, that ardor of desire which followed me everywhere. From the study of the world I had learned nothing, and moreover I had lost the bliss of ignorance.'

'My sister, by a mysterious conduct, seemed to take pleasure in augmenting my ennui. She left Paris a few days before my arrival. I wrote to her that I intended to go and rejoin her; she quickly answered dissuading me from this project, under the pretext that she was uncertain about where her affairs would call her. What sad reflexions did I not then make on friendship, which presence cools, which absence effaces, which does not resist misfortune, and is even lost in prosperity!'

'I was soon more lonely at home than I ever had been in a foreign land. For some time I wished to mingle in a world which said nothing to me, and which did not understand me. My soul, which no passion had yet impaired, sought for an object to which it could become attached; but I found that I gave more than I received. Neither an elevated language nor a profound sentiment did they desire me to bestow. I was busy only in shrinking up my life, to place it on a level with society. Characterized throughout with a romantic spirit, ashamed of the part I was playing, disgusted more and more with things and with men, I resolved to retire in a faubourg, to live there wholly unknown.'

'At first I found pleasure enough in that obscure and independent life. Unknown, I mingled with the crowd, the vast desert of men!'

'Often seated in a church, frequented by a few, I spent hours and hours in meditation. I saw poor women come and bend in adoration before the Most High, or sinners kneel at the altar of penitence. Not one goes away from those places without a countenance more serene; and the deafening clamors which one hears in the streets seem to be the waves of passions and the storms of the world which beat and die at the foot of the Temple of the

Lord. Great God, who saw secretly my tears flowing in those sacred retreats, thou knowest how many a time I cast myself at thy feet praying that thou wouldst free me from the load of life, or change the Adam within me! Ah! who has not felt sometimes the need of regeneration, of renewing himself by the waters of the torrent, of refreshing his soul at the fountain of life? Who has not sometimes been overwhelmed by the weight of his own unworthiness, and incapable of doing anything grand, noble, just?

'When the evening was come, regaining the path from my retreat, I stopped on the bridge to see the sunset. The star, illuminating the smoke of the city, seemed to oscillate gently in a fluid of gold, as the pendulum of the clock of ages. I then retired with the night, through a labyrinth of solitary streets. Observing the lights which shone in the abodes of men, I wafted myself away on the wing of thought amid the scenes of grief and of joy which they brightened, and I felt that, under all the roofs of those inhabitants, I had not one friend. In the midst of my reflexions, the bell began, with solemn sound, to toll the time in the tower of the gothic cathedral; it was repeated with blended tones, and to remote distances, from church to church. Alas! each hour in society opens a grave, and makes the tears flow.'

'This life, which at first had enchanted me, soon changed into a source of my misery. I grew weary of the repetition of the same scenes and of the same ideas. I began to search my heart, and to ask of myself what I desired. I knew not what; but on a sudden I thought that some charm might be found in the woods. At once I resolved to end in a wild exile a career scarcely begun, and in which I had already wasted many years.'

'I embraced this project with the ardor which I infused in all my designs; I left hurriedly to seclude myself in a thatched cottage, as I had gone heretofore to make a tour of the world.'

'Some accuse me of having inconstant tastes, of being unable to enjoy the same fancy for a long time, of being the prey of an imagination which siezes hold of the foundation of my pleasures, as if it was tired of their endurance; others accuse me of always passing by the goal which I reach: alas! I seek only an unknown good, of which the intuition impels me. Is it my fault if I find limits everywhere, and no longer any interest in what is once done? However I feel that I love the monotony of the sentiments of life;

and if I have yet the madness to believe in happiness, I will seek for it in accordance with my custom.'

'Absolute solitude, the appearance of nature, plunged me soon into a condition which almost baffles description. Without parents, without friends, one might say all alone on the earth, having never yet loved, I was overwhelmed with a superabundance of life, sometimes I would blush suddenly, and I would feel something flowing in my heart like streams of burning lava; sometimes I burst forth with unvoluntary screams, and the night was troubled equally with my dreamings and my watchings. Something was wanting to fill up the abyss of my existence: I descended into the valley, I ascended the mountain, appealing with all the power of my emotions to the ideal object of a future flame; I embraced it in the winds, I thought I could hear it in the moaning of the waves; this imaginary phantom was everything, yes, the stars in the skies, and even the principle of life in the universe.'

'Yet this condition of repose and of trouble, of poverty and of opulence, was not without some charms: one day I was amusing myself by stripping off the leaves from the branch of a willow by the brook side, and attaching an idea to each leaf which the current drew away. A king who fears he may loose his crown by a sudden revolution, does not feel anxieties more lively than were mine at each circumstance which threatened the destruction of my branch. O weakness of mortals! O infancy of the human heart, which never grows old! Behold! to what depth of puerility our proud reason can descend! And yet is it true that very many men bind their destiny to things of as little importance as my leaves of the willow.'

'But the croud of fleeting sensations which I experienced in my walks cannot be expressed. The tones which passions produce in the void of a lonely heart are like the murmurs which the winds and the waves arouse in the silence of the desert: one may enjoy, but he cannot describe them.'

'Autumn surprised me amid these uncertainties: I entered with rapture upon the mouth of the tempests. Sometimes I wished to be one of those warriors wandering through the storms, the clouds and the phantoms; sometimes I envied the lot of the herdsman whom I saw warming his hands at the little bramble fire which he had kindled in a corner of the woods. I heard his melancholy songs, which reminded me that in all lands the natural song of

man is sad, even when it expresses happiness. Our heart is an unfinished instrument, a lyre whose cords are untuned, and with which we are compelled to utter the accents of joy by tones consecrated to sorrow.'

'During the day I wandered over the broad meadows bounded by the forests. The slightest thing excited my revery! a dry leaf which the wind chased before me, a hut whose smoke arose over the hill stript of trees, the moss which trembled at the breath of the north-wind on the trunk of an oak, a broken rock, a lonely pond where the faded rush was mourning! The solitary steeple raising itself at a distance in the valley, has often drawn my attention; often have I followed the eyes of the birds of passage which flew above my head. I fancied the unknown shores, the foreign climes where they resort; I wished I could fly with them. A secret instinct tormented me, I felt that I myself was a voyageur; but a voice from heaven seemed to say to me: 'Man, the season of thy migration has not yet come; wait till the wind of death raises thee: then thou shalt display thy wings, and wend thy way to the unknown realms which thy heart longs to inhabit.'

'Arise soon, ye rapturous storms, and transport René into the spheres of another life!' Speaking thus, I walked with rapid steps, face glowing, the wind sighing through my locks, feeling neither rain nor frost, enchanted, tormented and seemingly possessed by the demon of my heart.'

'At night, while the north-wind was shaking my cottage, when the rain fell in torrents on my roof, when through my window I saw the moon ploughing through the huge broken clouds, like a white sailing vessel laboring amid the waves, I felt life redoubling from the bottom of my heart. I felt within me the power of the creation of worlds. Oh! that I could impart to another the extasies I experienced! O God! hadst thou but given me a wife after my own heart; if, as to our first father, thou hadst brought to me by the hand an Eve fashioned from myself * * * * * Heavenly Beauty, I would have knelt in adoration before thee; then, clasping thee in my arms, I would have prayed the Eternal to consecrate to thee the remainder of my life.'

[Continuation forthcoming.]

Some Thoughts on Self Intellectual Culture.

BY A MEMBER OF THE KEOKUK (IOWA) BAR.

Continued from page 224.

The exercise of intellect, and the improvement of language, are the *two means* by which we must lift ourselves and our race up to greatness and power and independence: how clear and vast and pervading are these; how infinite their powers; how stupendous their results! Just so it is with all human knowledge when reduced to its original elements; when analyzed and logically classed: simple, beautiful, easy of acquisition. All knowledge is science in the abstract. Science is the accumulated knowledge of *many* reduced and arranged, so as to be comprehensible to one. Art is nothing but the practice of science. Science has reference to mind: to matter and to morals; hence its primary division into abstract science and natural and moral science; the first, embracing metaphysics, letters and language; the second, physics, chemistry, physiology, and to which may be added mathematics, or the science of quantity; and the third, covering an examination of our complex duties to our God, our country, our fellow-men and ourselves in all the relations and responsibilities, in which it is possible for us to be placed. These primary divisions may be subdivided so as to embrace every department of human knowledge of whatever character or description.

Again: all knowledge is composed of simple ideas, and the understanding of their agreements and their disagreements with each other; and every new idea we acquire, and make our own, is a new and unquestionable advance in education. This may appear to be a rather homely and familiar way of viewing the arts and sciences and literature; but rest assured, it is the only intelligent and practically correct way. There is a disposition too prevalent, to throw around philosophy, in its enlarged sense, a veil of mystery and an aspect of austerity not belonging to it. It is contemplated by many as forbidding in its appearance and complex in its structure, and as legitimately belonging to a favored few, and beyond the reach of the great masses. It is supposed that opulence and illustrious birth and brilliant genius and the smiles of fortune, are indispensable in some way to become distinguished as scholars and statesmen and jurists and divines. The history and circumstances of celebrated individuals are imagined to be different from those of others, as though some undefinable charm and uninterrupted prosperity and superior spirit presided over their destinies.

Think ye, all those eminent men of this and other times, whose philosophy has enlightened, and whose eloquence has electrified, have never experienced the vicissitudes and trials and sorrows of life? Think ye, their course from childhood to the grave, has been marked by cloudless sky and balmy breeze? Have storm and tempest and rock and billow, never shattered their tiny barks, or endangered their eventful lives, or shipwrecked some of their dearest hopes? Had we leisure to draw aside the curtain, and look a little into the private history of a few distinguished individuals, who have flourished in

various countries, and at different periods of time; and whose genius and scholarship have contributed so essentially to the improvement and happiness of our race; and see if theirs was a life of affluence and sunshine, or of trial and vicissitude, if I am not exceedingly mistaken, we would find that very many of the most beloved and honored and gifted of men, have suffered with an intensity almost inconceivable; have struggled with difficulties, which would appeal and overwhelm the mass of mankind, and have emerged from an obscurity and a poverty, that had they been ours, would have crushed forever our wavering resolutions and half developed energies. We would learn further, that dazzling genius and fertile imagination have less to do with eminence and solid acquirement, than an iron resolution and indomitable perseverance. *These* belong to all; are within the reach of all, and are indispensable to, and inseparable companions of all intellectual greatness. The corruscations of genius may startle by their brilliancy, and the creations of fancy compel our admiration, yet their existence is brief and evanescent unless they are supplied at the living fountains of knowledge by the untiring hand of industry.

A narration of the early difficulties and struggles of eminent men in the pursuits of learning, and in their career to honor and renown, would furnish a truly rich and valuable lesson. The field of observation is an extensive one, replete with interesting examples, and furnishing powerful motives of encouragement to all. If our youth would bestow a few moments of serious thought, upon their own social position, their multiplied means of improvement, the numerous advantages they possess, and the respectable talents with which they are endowed, I think, they would avail themselves of every occasion and opportunity to devote themselves in the scale of intelligence. If our young men would diligently and earnestly cultivate all their mental powers, they would become respected, enlightened, and honored. If they would avoid scenes of dissipation, trifling conversation, and the formation of vicious habits; and by a judicious distribution of their time, and an unbroken determination, pursue a fixed and systematic course of instruction, they must and would ultimately rise to usefulness, eminence and great learning.

Every man, I care not what may be your situation, your age, your poverty, your associations, if you are true to your own powers, true to your country, true to your best interest, true to the cause of humanity, true to your own highest happiness, true to the genuine impulses and immortal responses of your own soul; you can rise above the mists of ignorance and prejudice to the bright, upper sky of philosophy and public usefulness. Though the morning of your life be dark and gloomy, full of crushing dispair and perilous trial, yet its noon will become clear and beautiful, and the evening of your days will be bathed in the gorgeous splendors of an unbounded sun whose rays will illume your path with honor and glory.

The poet has beautifully alluded to the stern energy required for success and distinction in life.

> "Thus at the flaming forge of life,
> Our fortunes must be wrought,
> Thus, on its sounding anvil shaped,
> Each burning deed and thought."

The examples furnsshed in the lives of distinguished persons will also prove highly interesting to the pale and thoughtful student, whose brow is lined with the deep traces of mental toil; whose days present one unbroken scene of conflict, and whose nights are consumed in silent secret, yet eloquent converse with the illustrious dead; they will cheer him on, and buoy him up in his trying journey, stimulate his jaded energies to renewed exertion, and present to him in distant prospect the noble rewards that will crown his efforts. Young man, "Look not mournfully into the past, it comes not again. Wisely improve the present, it is thine. Go forth to meet the shadowy future, without fear and with a manly heart." And

"Men of thought be up and stirring,
Night and day;
Sow the seed—withdraw the curtain,
Clear the way:
Men of action—aid and cheer them,
As ye may."

In the pursuit of learning, it will be well to inquire, what studies hold a superior claim upon our attention. The departments of knowledge are so numerous, and their details so nice and diversified, that it is impossible for any one mind to master all; and indeed among the large mass of the people a few only can be properly explored and comprehended.

On this branch of my subject I can only refer to a few subjects of study which appear to me to be invested with a more prominent and practical importance than others.

A first leading principle would seem to be to pay particular attention to that branch of knowledge most intimately connected with our condition and pursuits in life. That which relates to our business or profession is invested with a pervading and practical importance. It not only affects deeply our respectability in life, but involves largely our competent discharge of duty. By adopting a business or profession, we hold ourselves out to the world as qualified in every respect for its faithful and intelligent discharge, and upon which presumption and reasonable expectation of ability and skill, axtensive and delicate interests are intrusted to our care: interests, perhaps, which involve the fortunes, the reputation, the lives and the happiness of others. To possess imperfect attainments *here*, or to be negligent in the study and mastering of the art and science of our calling, evidences a wanton disregard of our own highest interests and of the most serious duties of life. To be respectable in our profession, deserves no particular praise; for it involves a simple, plain, practical discharge of duty; to be unqualified in our profession and interpose no efforts to redeem ourselves from our position, manifests gross neglect, and is deserving the most severe and unqualified animadversion. We ought then, by all means, and at every sacrifice, to master our business, understand its philosophy, study its history, and become familiar with its art and mystery. This is indispensable to our respectability, prosperity and happiness. Self-respect and all laudable ambition will be destroyed, unless we lay the foundations of our success in life, broad and deep, in a thorough appreciation of its principles and practice I would therefore urge most earnestly upon every young man, whatever may be his calling in life, whether mechanical or commercial,

professional or agricultural, to learn well and study deeply that calling, investigate its reasons and elements, and master all its departments and difficulties. He will thus experience a pride and consciousness of ability and mental wealth, that will inspire him with confidence and enable him to command the sincere respect and esteem of others.

Another very essential branch of education is the study of the history of our country and its civil and political institutions. In a Republic like ours, where every citizen possesses political rights and influence, which may be exercised for the honor or disgrace of his country, the necessity of political information and a thorough comprehension of the organization and purpose and end of government, cannot be too profoundly or earnestly impressed. No education can be valuable or complete without this.

The history of our republic extends over a very brief period of time, but it is rich in heroic achievement, replete with sound political philosophy, and enters deeply into the whole structure of government and the rights of man. In the annals of no nation, have the nature and obligation of the social compact been so searchingly discussed, and the true institution and design of civil society so fearlessly canvassed and accurately defined, as in our own. The bold and manly doctrines avowed by the colonies in their remonstrances to the tyrannical aggressions of Great Britain, the learned and elaborate expositions of government by the revolutionary fathers on the adoption of the articles of confedeation, and the most comprehensive, accurate and exhausting investigations, which the nature and structure, the institution and purpose of all human government underwent on the framing and acceptance of the federal constitution, furnish lessons full of instruction and wisdom, and are invaluable to the patriot and statesman. No individual can be supposed capable of legislating intelligently for his country, or of participating in the administration of its laws with a profound conviction of his responsibility, unless he has drank deeply of these fountains of knowledge, and imbued his mind with their wisdom and generous spirit. The history of our revolution is replete with illustrations of heroism and devotion to country, not surpassed in that of any other nation. Whatever adorns the human character, whatever sustains human fortitude, whatever consecrates lofty patriotism, whatever emblazens military renown, or whatever evidences sterling virtue and a self-sacrificing, self-sustaining spirit amidst cloud and darkness, is manifested in the history of our struggles and our triumphs in the cause of civil and religious liberty.

The story of Grecian valor, and of Roman virtue, is celebrated in verse and in song, the chivalrous deeds of England's heroes and Scotia's kings adorn the pages of their history, and live in the traditions of their people; and the iron discipline and enduring fortitude of Russia's soldiery, have become themes of wonder and admiration. But *their struggles* were the mere struggles of men for power and of kings for prerogative. Their revolutions were simply to elevate one class of tyrants upon the ruins of another; and their hard fought battles and blood stained fields brought nought of civil freedom and redeemed condition to a suffering people. The soldier poured out his blood and received his pittance and remained a slave; the general with

laurels crowned, bent his knee in servile homage before his lord and emperor. But the American revolution gave birth to an enlightened and regulated liberty. It was the offspring of redeemed mind, animated by a sense of its oppression, and conscious of its rights, its powers, and its duties. And the history and result of that revolution illustrate the determined purpose, the unquestionable zeal and the triumphant power of the people. And when the story of Greece and Rome shall be forgotten, the achievements of England and of Scotia remain unsung, and the crushing despotism of the haughty Muscovite be only remembered in the legends of tradition; the illustrious and beloved name of Washington, and the gallant deeds of the other heroes, of the revolution will be lisped by every tongue, and heard in every clime. And the battle-fields of our own country, and of wild, romantic Switzerland, and of poor, degraded Poland, and of heroic, generous, betrayed Hungary, now prostrate beneath the weight of the imperial empire; when the blood of the martyrs in the cause of liberty was shed, and their last expiring groans were heard, will become sacred spots dear to the heart and hallowed in the memory of every free man.

Let us then study most thoroughly, and love most devotedly our country. Let a knowledge of her institutions rank equal with her household gods. Let us teach our children to repeat the tale of her birth and the vicissitudes of her sufferings, and let their young and pliant minds be impressed with a sense of the value of their civil and social privileges. And that country so dear to us, securing so many blessings, preserving so many precious rights, and cherishing so many anxious hopes, may her union be eternal; not a star striken out, not a stripe torn; her flag unfurled to the winds of heaven, and floating in peace and in triumph—now and forever, over a free, a united and a prosperous people.

In this connection, I would urge the propriety of the study of civil liberty as illustrated in the history of the past. It will warm our love of country, and teach us the value and use of freedom. It will enlighten and liberalize our minds, and enlist our sympathies and our hopes in behalf of suffering humanity.

I would also most earnestly commend to the most attentive consideretion of the enlightened youth the study of the moral sciences. They instruct us in the nature and value of our domestic and social relations, and the rights and duties springing therefrom. We ought to remember that in the exercise of our rights, and in the performance of our duties, we will frequently come in conflict with others, who also have rights to be exercised and duties to be performed. And it becomes a matter of serious reflection and of conscience with us to respect those rights, and not do violence to those duties. We ought likewise to respect the opinions and feelings of those with whom we may have intercourse, however they may conflict with our own, for we all know the infirmities of our nature, the fallibility of our judgments, and the mutual dependence that exists among us. If we are fixed in our opinions, and indignantly reject injury to our feelings, so are others equally fixed in their opinions, and sensitive in their feelings. And God has transferred to no man the right to pass judgment upon me, or to pronounce an idle sentence of condemnation upon any

particular views which I may sincerily cherish. These are matters between man and his Maker.

The want of a thorough comprehension of the limitations of human responsibility, has led, and now leads, numerous well-meaning and orderly disposed citizens into an improper interference with the rights of others. Many reason from abstract principles without relation to the real condition of things, and thus attempt the justification of actions and conduct which is neither approved by the spirit of religion, nor sanctioned by the instructions of sound reasoning or experience. The conduct of certain classes of society would lead us to suppose that none others possessed rights and consciences excepting themselves, that *they* were exclusively right, and all others as exclusively wrong; and that God held them responsible for all the sins of omission and commission of the whole world. Let me, in a spirit of kindness, most earnestly assure all such persons, whereever they may exist, or in whatever circle they may move, that each individual in society has a mind and conscience of his own, which he will exercise in determining upon his duties, their nature, extent and limitation; and that *he alone* will be responsible for their appropriate, honest and judicious exercise. Let them recollect that peradventure others may be able to see as clearly, to reason as profoundly, to judge as correctly and to draw conclusions as accurately as themselves; and that a love of country and a christian spirit are best evidenced in the practice of mutual forbearance, in the exercise of a disinterested charity, in the cultivation of a spirit of conciliation and harmony, and in sacredly respecting the rights, duties and privileges of others. These are indispensable to the well-being of our government, and accord with the genius of our civil and social institutions. Our political union was the result of a noble and sublime spirit of compromise, concession and forbearance; let the influence of that same spirit rest upon us, and prevail over us, now and always, in the discharge of our civil, social and religious obligations.

In reaching the concluding portion of my subject, I regret that the length of the article will not permit more than a brief allusion to it. My previous observations will prove comparatively useless unless I can to some extent, interest or endeavor to interest the young mind in the pursuits of learning by referring to the encouragements that animate and the rewards that most assuredly follow all intellectual effort when judiciously directed and diligently pursued.

The theme is an inspiring one. It appeals earnestly, eloquently to us all. I would love to dwell upon it. I would love to expatiate upon its merits, sketch its outline with graphic pencil, and paint in vivid colors its dazzling glories. I would love to trace the unfolding of the mind from prattling infancy brilliant in the sunshine of hope and innocence, to eloquent and venerable old age, ripe in years and honors. I would love to watch the growth of its youthful hopes, its early efforts, its maturer years and its last advances to greatness and to power. I would love to recite the simple, yet thrilling tale of the crushed hopes, the agonizing sorrows and the perilous vicissitudes of genius; its rise, its progress, and its splendor: how it labored and struggled for its existence; how it toiled in the field and in the workshop; how the cold chill of disappointment nipped its young and ten-

der blossoms ; how the cruel world scowled upon it in its first successful dawnings into active life; how it alternated between hope and fear midst the bosom of cloud and storm and darkness ; how, at last, it triumphed over every adversity, overthrew every barrier that obstructed its progress, and burst in its full and matured majesty upon the vision of an astonished world. I would love to call back to this life the spirits of those illustrious dead whose works are consecrated in our memories and in our affections, and ask them if they would exchange the glories and triumphs of learning for the richest jewels and the mightiest honors of earth. I would love to penetrate the youthful mind with the value and beauty of knowledge ; to expatiate upon its nature, its personality, its intransmissibility and its permanence; to illustrate and enforce the necessity of perseverance and energy, and to point out the respectability and honor and distinction invariably attendant upon all steady, well directed and resolute effort ; and thus enlist his affections and animate his exertions and cheer and establish his hopes in the cause of human progress. In the course of our previous remarks some of these subjects have been incidentally alluded to, and this article is already extended to a greater length than originally intended.

I have written warmly and earnestly in behalf of individual education. My design has been to awaken an interest in this important subject, and to arouse the young mind to a sense of the absolute and overwhelming necessity of its early and careful cultivation. How far I have succeeded I know not; perhaps the time employed in the effort might have been more profitably expended ; yet, if I have stirred up one mind to thought and action: if I have thrown abroad a single sentiment which may be caught up and rendered useful; if I have elicited a single ray of light to illume the dark and lone path of the care worn student in his wanderings to honor and to fame ; if I have touched though with a rude hand the string in which the soul's harmonies are wrapped up, so that its vibrations pour forth that soul's music, if there is one mind which after reading this, feels more of renewed effort, more of awakened hope, more of re-animated energy to persevere in his toils, then I am amply repaid and satisfied.

I wish to see the fabric of mind built up and unfolded in all its massive grandeur and beautiful proportion. I wish to diffuse the lights of learning, to enthrone the majesty of genius, and to lay broader and deeper the foundations of the greatness and opulence and splendor of a country so dear as is our own to every American heart, and which promises in the lapse of centuries untold happiness to countless millions. *Esto perpetua.*

There is one more thought connected with this exciting theme to which I must allude. It is near and dear to my heart. It has been cherished as the miser, his hoarded treasure or the young mother, her first- born. It has again and again cast forth its heaven light, dispersing the surrounding darkness, and cheering and reanimating my desponding hopes. *It is the eternity of mind.* Aye, its eternity of existence. The massive structures of art may crumble into dust, and the noblest achievements of genius lie prostrate beneath the storms of time ; yet the mind, the immortal mind will survive with all its mysterious faculties, its rich possessions and its glorious endowments. Genius and

imagination, taste and sensibility, science, literature and the arts, all that elevates and refines and ennobles and adorns our spiritual nature, they, too, will survive; and justice herself will survive with all the relations on which her existence depends, she has her abiding place on earth, her throne in heaven, and her existence in intelligent mind. Not more giftedly than sublimely has the poet sung; when speaking of the immortality of the human mind, he exclaims:

> "The stars shall fade away, the sun himself
> Grow dim with age, and nature sink in years;
> But thou shalt flourish in immortal youth,
> Unhurt, amid the war of elements,
> The wreck of matter and the crush of worlds!"

We live in a period of time where powerful and organized and unexampled efforts are making to multiply the means of education, and render purer and more enlightened the public sentiment. Mighty agents and controlling elements are at work everywhere where christianity and civilization have sown their seeds and planted their standard: and if we do not act with decision and energy, we shall soon be left very far behind those around us. We cannot pause, if we would. There is no time for deliberation. Surely as water seeks its level, surely as to-morrow's sun will rise, surely as civilization elevates the human race, and religion consecrates the best affections: so surely will we be driven into the back ground, if we are not active and intelligent and persevering in our efforts.

We must conduct ourselves as individuals conscious of our position in society and resolved to perform our duty. The age is full of interest, excitement, hope, change; and we must imbue our minds and hearts with its spirit and genius, and launch our enterprize with a generous confidence upon the current of passing events, if we really hope to preserve our learning, our religion and our civilization. There is no other means of progress, no other means of advancement in the arts and sciences, no other means of attaining perfection in all which adorns human character, and imparts value to social intercourse. To these we must look, and upon these we must rely. Come cloud or sunshine, prosperity or adversity, liberty or revolution, we must, we are bound by the most solemn considerations, we are invoked by the spirit of eternal justice and the genius of the loftiest patriotism to sustain all those means, and strengthen and sanctify all those institutions, religious and eleemosinary, literary and scientific which confer individual happiness, develop the social virtues, and establish and perpetuate national freedom and independence.

I cannot more appropriately conclude this article than by quoting the lofty sentiment and beautiful language of one of our most profound statesman and gifted orator, himself a splendid illustration of the influence of individual effort and free institutions in elevating *the man* from the obscurity of private life to the proudest and most commanding position in our republic:

"Our proper business is improvement. Let our age be the age of improvement. In a day of peace, let us advance the arts of peace and the works of peace. Let us develop the resources of our land, call forth its powers, build up its institutions, promote all its great interests, and see whether we also in our day and generation may not perform something worthy to be remembered. Let us cuttivate a true

spirit of union and harmony. In pursuing the great objects which our condition points out to us, let us act under a settled conviction and an habitual feeling, that these *thirty-one* States are one country. Let our conceptions be enlarged to the circle of our duties. Let us extend our ideas over the whole vast field in which we are called to act. Let our object be our country, our whole country, and nothing but our country. And by the blessing of God may that country itself become a vast and splendid monument, not of oppression and terror, but of wisdom and peace and of liberty, upon which the world may gaze with admiration forever."

Valley of the Ohio.

BY MANN BUTLER, ESQ.

Continued from page 228, vol. XI. No. 68.

MIGRATION OF BOONE; MCGARY AND RAY; ADVENTURE OF THREE BOYS, IN 1773 AND 1776; FORT OF HARRODSBURG; GRANTS OF LAND BY HENDERSON & CO.; SOCIAL COMPACT FOR THE COLONY OF TRANSYLVANIA, IN 1775; MEMBERS OF THE 1ST LEGISLATURE IN THE WEST.

In despite of these dangers and difficulties so graphically and truthfully pourtrayed by the historian Marshall, who had acted his part in all these various scenes, struggling for life with the wilderness and a wily and savage foe, "there were from a review of the records" more improvements, as cultivation and buildings are expressively termed, "with a view to future settlement in this year (1776), than in any other." Nor were these dispersed parties in so wide a territory so generally exposed as in the fixed and notorious forts.

After the fort at Boonesborough had been completed, Boone returned to North Carolina, a second time, in order to bring his family to Kentucky. He had attempted this in 1773, "in company with five families and forty men who joined," as he says, "in Powell's valley, 150 miles from the now settled parts of Kentucky. But on the 10th of October, 1773, says the same brave old woodsman, "the rear of our company was attacked by a number of Indians, who killed six men and wounded one; of those my oldest son was one that fell in the action."*

This severe repulse had deterred the party from prosecuting their daring enterprise, until the time just mentioned. When McGary's party had arrived at the head of Dicks river, Boone, with twenty-one men, went to Boonesborough, and left his previous associates to find their way, as well as they could, by his directions, through the pathless forest to Harrodstown. At the time of our narrative, there were but four cabins at this place, and five old soldiers in them, who had followed James Harrod from the Monongahela country. This distinguished explorer, (of whom so little is known beyond the kind, affectionate character given him by Mc Humphrey Marshall,) had likewise settled a place known as Harrod's station, about six miles east of Harrodsburg, on the present road from that place to Danville

* Filson.

The families with McGary, having got bewildered, while the horses and cattle were left with the boys, James Ray, John Denton and John Hays, then between 14 or 15 years of age, opposite to the mouth of Gilbert's creek, on the east side of Dick's river, the residue of the party attempted the route by themselves; but McGary, finding no passage at the mouth of Dick's river for the families, on account of the precipitous cliffs which overhung the river, went by himself to explore the way. By accident he fell on the path between Harrodsburg and Harrod's station, and taking the eastern end, it brought him to the latter place, where he got Josiah Harlan, of lamented memory, to pilot the families, as well as the three boys, (who had been left behind to watch the stock of cattle,) in safety to Harrodsburg. Thus was formed the first domestic circle of Harrodsburg by Mrs. Denton, Mrs. McGary and Mrs. Hogan with their families; where was lately the resort of the gayest of the gay among the fashionables of the West and the South.

The younger woodsmen of whom mention had been made, were not, however, relieved until three weeks had elapsed, instead of three days as first promised them by McGary, when they were left on this forlorn hope. Does it not speak volumes for the hardihood of the times, that three boys of such immature years should be left for three weeks by themselves in an Indian wilderness! To add to their distress, they could not have forgotten the fall of three other boys, the eldest hopes of three families, who had been killed by the Indians in 1773, at the *first* attempt of Boone and his company to remove their families to the wilderness of Kentucky. They had been left, almost under similar circumstances, to collect some stray horses in Powell's Valley, when on their route. One of those premature victims to Indian hostility had been a playmate of James Ray, in North Carolina.

During the winter of 1775 and 1776, was begun the fort of Harrodstown, (or Harrodsburg, as it is now better known,) of enduring importance in the early history of Kentucky.

The second attempt of Boone to remove his family to Kentucky just mentioned, seems to have been made about September, 1776. It was in company with a party consisting of Hugh McGary, [afterwards so notorious,] Richard Hogan, and Thomas Denton, with their families, constituting together with Boone and his mere immediate companions, in the language of the times, twenty-seven guns; that is equivalent to twenty-seven fighting men. This party assembled at Powell's Valley, on the head of Holston river, after having waited three months for the junction of Boone's company. They had sent one John Harman before them to raise a crop of corn at Harrodsburg. This labor he performed, in a field east of the present town, where John Thompson lived in 1833. This party seems to have been unmolested; and Boone only says: "we arrived safe without any other difficulties than such as are common to this purpose; my wife and daughter being the *first white* women that ever stood on the banks of the Kentucky river." When McGary's party had arrived at the head of Dick's river, [a tributary of the Kentucky,] they separated from Boone, who with twenty-one men took their course to the new fort, at Boonesborough; leaving their previous associates to find their way to Harrodstown.

At the time of our narrative, there were about four cabins at this latter place, one of which was alone inhabited, and five old soldiers in it, who had followed James Harrod from the Monongahela country. This distinguished explorer had likewise settled a place, known as Harrod's station, about six miles south-east of Harrodsburg.

Scarcely had the fort of Boonesboro' been roughly and loosely constructed, certainly not finished, till the 14th of June, 1775, than these hardy pioneers carrying with them into the wilderness the manly principles of their British ancestors, undertook to organize a form of government in these distant and almost uninhabited forests. This is an interesting portion of western history little dwelt on, and not sufficiently known. It has not received the slightest notice from the earliest historians, not even from the well informed Marshall. The whole affairs of Henderson & Co. seem to have been ignored by this author. But, however unfounded the claims of the company were; they issued grants of land to a great extent; so that by the 1st of December, 1775, 560,000 acres of land were entered, as is presumed, in their office. Deeds of great formality were issued by this company, calling themselves "*Proprietors of the Colony of Transylvania.*" By these deeds, the grantees under the company, bound themselves to pay them "one moiety or half part of all gold, silver, copper, lead or sulphur mines; and moreover to pay the company a rent, as might be agreed on "yearly and for every year." The penalty for not paying this rent, was provided for by a covenant, "that if no sufficient distress can be found on the premises, whereon itshall be lawful for said company to levy such rent, or arrears, with full costs, charges and expenses in making and levying the same, then the present grant and all assignment shall be void and of none effect." The company then reserved a right, "to reenter into the said lands, and regrant the same to any other person or persons whatsoever."* Had this company retained its title, they would, within their purchase, have been under a quit rent to those great proprietors forever.

It is, however, much to be doubted whether the high temper of the western people amidst the vast wilderness of uncultivated land, would have submitted to a state of things which had been a constant source of heart burnings in the elder colonies, and has continued to our own times in the State of New York. Sooner, indeed, than have been anything less than fee simple or allodial proprietors, the hunters of the West, (had they not risen in arms,) would have abandoned the country to those land proprietors for lands to be freely obtained, in terms more suitable to their interests and their feelings. Symptoms of slight hold these terms had upon the hearts of the people, may be inferred from the fact that upon the earliest manifestations of Indian hostilities, 300 men are said to have left the country by July, 1776.† Col. Clark intimates the same, in his memoir, which will hereafter invite the reader's attention. In this, he remarks, that the company took great pains to ingratiate themselves in the favor of the people; but, too soon for their own interest, began to raise upon their lands which caused many complain."

---

* Deeds of the Transylvania Company, in the Henderson Papers.

† Correspondence of Col. Floyd.

Notwithstanding these discontents incident to frontier life, the settlers under the company soon proceeded to organize a government for the infant colony. Nor is it one of the least curious in the history of our pioneers, while engaged amidst the perils of wilderness life.

Fragment of Faust.

FROM THE GERMAN OF GOETHE.

MARGARET'S ROOM.

Margaret at the spinning-wheel, alone:

My heart is sad,
My rest is o'er;
I'll find it never,
No, never more.

The grave's my lot,
Where he is not;
To me the world
'S in ruin hurl'd.

Oh my poor head
Is all amazed,
And my poor sense
Seems to me crazed.

My heart is sad, &c.

But for him look I
Through the window out,
But for him go I
From home about.

His lofty gait,
His smiling lips I prize,
His noble figure,
His love-lit beaming eyes.

His words of magic,
Thrilling bliss,
His pressing hand,
And Ah! his kiss!

My heart is sad, &c.

To be near him,
My breast presses,
Did I not fear him,
With wild caresses,

My heart confesses,
Clinging, kissing, I
Would, on his kisses,
Be glad to die.

Gretchens Stube.

Gretchen am Spinnrade allein.

Meine Ruh' ist hin,
Mein Herz ist schwer;
Ich finde sie nimmer
Und nimmermehr.

Wo ich ihn nicht hab'
Ist mir das Grab,
Die ganze Welt
Ist mir vergällt.

Mein armer Kopf
Ist mir verrückt,
Mein armer Sinn
Ist mir zerstückt.

Meine Ruh' ist hin, &c.

Nach ihm nur schau' ich
Zum Fenster hinaus,
Nach ihm nur geh' ich
Aus dem Haus.

Sein hoher Gang,
Seine edle Gestalt,
Seines Mundes Lächeln,
Seiner Augen Gewalt.

Und seiner Rede
Zauberfluß,
Sein Händedruck,
Und ach sein Kuß!

Meine Ruh ist hin &c.

Mein Busen drängt
Mich nach ihm hin,
Ach rührte ich fassen
Und halten ihn!

Und küssen ihn
So wie ich wollt!
An seinen Küssen
Vergehen sollt'!

ADVERTISING DEPARTMENT.

Western Journal and Civilian.

A FEW full sets, neatly bound old and new series, from January, 1848, during 5 years, 9 vols., for sale at $20 a set. Also full sets of new series, 4 vols. bound, $7 a set. Subscription price $3 a year, in advance. for 2 vols. New suoscribers can thus obtain full sets of new series, six vols., 4 bound and 2 unbound, fo $10. Apply to I. J. COOPER, Agent, or to TARVER & COBB, Editor sand Proprietors, 73 Chesnut street.

Attorneys.

PHILIP PIPKIN, Jr. Attorney at Law, Hillsboro', Mo.

F. HEREFORD, Attorney at Law, Independence, Mo. Office over Thomas & Todd's store.

Refer to Messrs. Thomas & Todd, Smart & Hughes, Coleman & Dallam, Independence, Mo.; Hon. Wm. Scott, Hon. Thos. L. Price, George W. Hough, Jefferson City, Mo.; Tutt & Watson, M. Tarver, Esq., H. Cobb, Esq., St. Louis, Mo.

Notary Public.

ADOLPH KEHR,
Notary Public, No. 11. Fourth street, opposite the Court House.

ANTHONY V. HOFER,
Notary Public and Conveyancer,
Office: Southeast corner of Second & Walnut streets, next to C. Witter's Book Store, St. Louis, Mo.

Land Agency Notice.

WORTHINGTON G. SNETHEN continues to practice Law in the Supreme Court; to attend to cases before Congress; to prosecute Claims and settle accounts against the Departments and Boards of Commissioners; to procure Patents at home and abroad; to obtain Pensions and Bounty lands; to collect debts, dividends, legacies and inheritances in any part of the United States and in *foreign countries*; to make investments of funds in Loans and Stocks and on Bonds and Mortgage, and to negociate the purchase and sale of Loans, Land and Patent-rights in any State of the Union. Particular attention paid to California Land Title cases coming up to the U. S. Supreme Court on appeal.

☞ Communications *prepaid*, addressed to W. G. SNETHEN, 5, Carroll Place, Capitol Hill, Washington, D. C., will meet with prompt attention.

GENERAL AGENCY at Dubuque, Iowa, for public lands, real estate, military land warrants, payment of taxes, investigation of titles, amicable collection of debts, and all other business within the legitimate sphere of an Agent's duties, by

CHARLES CORKERY,
Notary Public and Commissioner of Deeds and Depositions for all the North-western States, Missouri included. 18 October, 1.

Brushes.

F. DINGS & CO., importers of German, French and English Fancy Goods, and manufacturers of all kinds of brushes, No. 47 Main street, St. Louis, Mo.

EDWARD MEAD & CO.,
Importers and Dealers in
WATCHES, CLOCKS, JEWELRY,

TABLE and Pocket Cutlery, Solid Silver and Plated Ware, Musical Instruments, Daguerreotype Stocks, Fancy Goods, and

CALIFORNIA ARMS.

American and Rocky Mountain Rifles, Colt's Revolvers, Steel Rifle barrel and Holster Pistols, Bowie Knives, and a large assortment of hunting apparatus.—Importing our foreign goods directly from the Manufacturers in Europe, we have superior advantages, and will sell to our customers equally as low as the New York Importing Houses, and would invite the attention of dealers and purchasers to our large stock of Watches, Silver and Plated Ware, Accordeons, and English twist double and single barrel guns. No. 54 Main, corner of Pine Street, St. Louis.

C. WITTER, 38 Walnut street, corner of 2d, St. Louis, Mo. German and French standard works, Novels and School Books. Blank Books. Writing Papers, Music Paper, Slates & Ink, Engravings, Prints, Steel Pens, Inkstands, &c.—Printing and Binding executed in the best manner. Orders for England, France and Germany are executed at the shortest notice.

College.

JONATHAN JONES' COMMERCIAL COLLEGE, St. Louis, Mo., incorporated by the General Assembly, January 24, 1849. With full authority to "grant diplomas, award degrees, confer honors, and exercise all and singular, the privileges common to Commercial Colleges, authorized by law in other States."—Charter, Sec. 2.

Young Gentlemen wishing to prepare themselves for busine s pursuits, are respectfully invited to call during business hours and examine the mode of imparting instruction, the progress of the pupils, and the superior facilities extended to those desirous of qualifying themselves for the practical duties of the Counting House. Personal references given to above one hundred and eighty (180) Practical Accountants now in charge of Books in this city, all of whom have completed their business education in this institution.

N. B. For CIRCULARS containing information in regard to the terms, the course of instruction and all business connected with the above, call at the "Book-keeping Department," corner of Fourth and Chestnut streets, or address JONATHAN JONES, St. Louis, Mo.

Roofs.

C. M. & H. M. WARREN, manufacturers of Warren's Improved Fire and Water-Proof Composition Roofs, and Roofing Materials, which are kept constantly on hand and for sale (with directions for use) to those in the country who may desire to adopt this mode of roofing.

Office and Manufactory, east side Second street, between Almond and Poplar, St. Louis, Mo. Office hours from 10 to 11 o'clock, A. M., and 4 to 5 P. M.

Horse Shoeing.

JOHN MULLERY, Premium Horse Shoer in the alley, opposite the Post Office, will as usual pay particular attention to the various diseases affecting the feet of horses, and will guarantee to give general satisfaction in either of the above departments.

CHOCOLATE, COCOA & BROMA.

W. BAKER & Co's American and Vanilla Chocolate, Cocoa and Broma, to which first premiums have been awarded by the chief Institutes and Fairs of the Union, are for sale by all the principal Grocers in the United States, and by their agents,—

HUSSEY & MURREY, New York; GRANT & TWELLS, Philadelphia; THO'S V. BRUNDIGE, Baltimore; KENNET & DUDLEY, Cincinnati, Ohio. WALTER BAKER & CO.

Dorchester, Mass.

Liquors and Wines.

CHARLES DERBY, Wholesale Dealer in Foreign Liquors and Wines, Domestic Liquors, and that well known "Star" Brand of Rectified Whisky, No. 71 Levee, (entrance from Levee and Commercial Street,) St. Louis.

Safes.

M'MURRAY & DORMAN, Iron Railing Manufactory, n. s. of Chesn. bet. 9. & 10. streets, continue to manufacture at the above establishment, all kinds of plain and ornamental iron railing, balconies, bank and jail doors, book safes, fire-vaults, iron window shutters, iron awnings, lightning rods, bedsteads, gratings, and in fact, any thing which can be formed of iron.

Trunks.

M. PENDZINSKI, Premium Trunk Maker. Constantly on hand, at wholesale and retail, and made to order at the shortest notice, Hard Leather Trunks, Solid Leather Steel Spring Trunks, Valises, Carpet Bags, Packing Trunks, Ladies' Dress Boxes, &c.

Trunks repaired in the best manner. Call and examine for yourselves before buying elsewhere, as I am determined to sell as low as any house in the trade, at all risks. No. 42 North Second street [Westside,] between Chestnut and Pine streets, May, 1851.

Foundry.

ROLIN CLARK, PHILANDER BRALEY.
JOHN RENFREW. ALEXANDER CROSIER.

EAGLE FOUNDRY AND ENGINE SHOP, North-west corner of Main and Biddle streets. Manufacturers of all kinds of machinery, boilers and sheet iron work, portable circular saw mills always on hand, all orders executed with fidelity and despatch.

Records.

PERSONS wishing to obtain transcripts of records in New Madrid county, can procure them without delay by addressing the undersigned. And to avoid the inconvenience of remitting small sums, the records will be directed to George Pegrim & Co., St. Louis, who will deliver the same upon the payment of the fees. WM. MOSELEY,

Recorder of New Madrid Co., Mo.

March, 1851.

Boots & Shoes.

SCHROETER & EBY, Manufacturers of Boots and Shoes. No. 44 Main Street, Fourth door South of Pine,) St. Louis.

Saddlery.

T. GRIMSLEY & CO., Dealers in all kinds of Saddles, Bridles, Harness, Trunks, Carpet Bags, &c., No. 68 Main street, four doors below Olive st., St. Louis, Mo.

Jewelry, Watchmakery & ENGRAVING.

P. STUBENRAUCH & SONS,

No. 11 N. 3d str. between Chesnut & Market, and No. 17, Chesnut street, opposite the New Post Office.

Would call the attention of the public and the trade generally to their extensive stock of Jewelry, Watches and Clocks. They also are well enabled by long practice and experience to perform all kinds of engraving, in stone as well as metal, in the best style, such as seals or Notary Publics, for Insurance Companies, for Railroad Cos., and all other Companies.

☞ All orders promptly executed and on the most liberal terms.

Commission Merchants.

B. MERRILL,

COMMISSION MERCHANT,

Tuscumbia, Ala.

Refer to M. Tarver, Esq., St. Louis, Mo.

ANGELRODT & BARTH, Commission and Forwarding Merchants, No. 126 North Second Street, between Vine Street and Washington Avenue, St. Louis, Mo.

RUSSELL & BENNETT, Wholesale Grocers and Commission Merchants, North-West corner of Olive and Second streets, opposite the Monroe House, St. Louis, Mo.

Flowers.

FLORA GARDEN.—This establishment contains a collection of Plants and Flowers not excelled, perhaps, by any in the United States. Of ROSES alone there are 230 varieties: and the proprietor has devoted ten years to storing his HOT-HOUSES, 420 feet long, with specimens of rare and beautiful plants, and flowers from almost every part of the globe The garden is pleasantly situated on South Seventh street and affords a delightful retreat from the noice and dust of the city. A commodious SALOON has been fitted up and will be supplied with Confectionary, Ice Creams, and other refreshments suitable to the season and the place. Spiritous liquors are excluded from the premises. Bouquets of the richest flowers and most tasteful combination furnished throughout every season of the year.

March 1853. G. GŒBEL.

Merchant Tailor.

J. H. BLOOD, Merchant Tailor, No. 2 Third Street, One door from the corne of Chestnut Street, St. Louis, Mo.

TO THE LADIES.

MR. P. A. PIGNERO begs to inform the public and the Ladies more particularly, that he has taken the store, corner of Pine & Fourth streets, under Planters' House, to which he will remove his establishment for False Hair, of every variety, and for matums, Combs, &c. &c. Mr. Pignero has recently received from the East a large and select lot of Wigs, Ques, and False Hair, manufactured in every style and to suit every taste. He begs for an examination of his stock. Private rooms for ladies and gentlemen, entirely seperate, and fitted up, where consultation on diseases of the hair can be had free of charge.

JOHN I OUGHBOROUGH, Attorney and Counsellor at Law, office No. 56 Pine street, near Third, (adjoining that of the Clerk of the Supreme Court.

THE

WESTERN JOURNAL

AND

Civilian

M. TARVER & H. COBB, Editors and Proprietors.

VOL. XI.—O.S. 5, N.S. JANUARY, 1854. NO. 4.

TABLE OF CONTENTS.

ARTICLES.

ART. PAGE.

I.—EXCESSIVE TRADING. Causes and Effects of Overtrading. Observations upon the report of the Secretary of the Treasury of the United States. Overtrading in California. By the SENIOR EDITOR..... 233

II.—FLAX CULTURE.—Preparation of the land, soil, seed, harvesting the crop, improvements in separating the flax fibre, &c..... 241

III.—ATMOSPHERIC RAILWAY. A new plan..... 249

IV.—COST OF REPAIRS OF LOCOMOTIVES. By ZERAH COLBURN..... 253

MINES AND MINING.

PITTSBURG COAL TRADE..... 259

COAL TRADE OF GREAT BRITAIN..... 262

GOLD MINING IN NEW MEXICO..... 263

PROFESSOR MAPE, On the Manufacture of Wrought Iron direct from the Ore..... 264

COMMERCIAL DEPARTMENT.

COMMERCIAL RECORD. Tabular Statement of Leading Articles received at St. Louis for the month ending January 15th, 1854. Prices of Leading Articles of Produce and Groceries at St. Louis, New Orleans, New York, and at Liverpool, at last dates.—FREIGHTS AND NAVIGATION. Coastwise and foreign freights. Navigation of the Western Rivers, ice, &c. Money and exchange. Weekly Statement of the New York Banks. National Finances. Price Current of Leading Articles of Produce and Groceries, at St. Louis, on the 1st and 15th of January, 1854..... 266

COMMERCE OF ST. LOUIS. Statement of foreign value of goods, wares and merchandise imported at St. Louis, and the duties collected, in the year ending December 31st, 1853, Hospital monies collected, &c..... 270

Number and Tonnage of steam vessels permanently enrolled in the District Port of St. Louis up to 1st January, 1854..... 272

Aggregate Condition of the Bank of the State of Missouri and its Branches, on the 31st December, 1853, and Amount of Dividends declared during the year..... 272

JOURNAL OF INTERNAL IMPROVEMENT.

STATEMENT showing the number of miles of Railroad in operation in the United States on the 1st day of January, 1854, containing the name and length of each road..... 273

AGGREGATE STATEMENT of the number of miles of Railroad open in each State; Area of square miles, number of population, &c..... 278

RAILWAY SHARE LIST, containing name of road, number of miles open, capital paid in, amount of funded debt, total cost of road, gross and net earnings for the last official year, dividends declared, price of stocks, &c..... 279

JOURNAL OF MANUFACTURES.

MANUFACTURES VS. LAND SPECULATIONS. By the JUNIOR EDITOR..... 285

MISSOURI IRON..... 290

CAPITAL INVESTED IN MANUFACTURES IN THE U. S..... 290

LITERARY DEPARTMENT.

RENE. Translated from the French of Chateaubriand. By the JUNIOR EDITOR..... 291

SOME THOUGHTS ON SELF INTELLECTUAL CULTURE. By a Member of the Keokuk (Iowa) Bar..... 297

VALLEY OF THE OHIO. Its conquest and settlement by Americans. Migration of Boone; McGary and Ray; Adventure of three boys, in 1773 and 1776; Fort of Harrodsburg; Grants of land by Henderson & Co.; Social compact for the colony of Transylvania, in 1775; Members of the first Legislature in the West. By MANN BUTLER, Esq.,..... 305

FRAGMENT OF FAUST. Translated from the German of Goethe. By the JUNIOR EDITOR..... 308

Lithographic Establishment.

SCHAERFF & BRO., No. 71 Market street, St. Louis, Mo., are prepared to execute anything in the line of lithography; and especially, as they are in possession of the largest sized lithographic presses and stones, they are able to fill orders of the largest dimensions. They take and lithograph portraits and likenesses from daguerreotypes, engrave or lithograph show bill cards, business and visiting cards, diplomas, music, manifests, labels, facsimiles, bank notes, bank bills, bank checks, bill heads, drafts, bills of lading, maps, town plats, &c.

☞ They particularly beg leave to request the special notice of the public to their crayon drawings and colored lithographs, in as much as this is the only establishment in the West, where this improved style of lithographing is practiced.

F. & C. BOHYN'S Lithographic, Drawing, Engraving, and Color Printing Establishment, No. 44 North Second Street, below Pine, St. Louis, Mo.

Portraits, Landscapes, Animals taken from life; Music, Vignettes for Books; Drafts, &c. Show bills, Labels, Business & Visiting Cards, Architecture, Machinery, Drawings, Plans, Maps, &c.; Drawings of all kinds executed on Stone.—Copper and Steel plates, wood cuts, Manuscripts &c. transferred. All kind of color and ornamental printing executed in the neatest style, at moderate Terms.

Paper Hangings.

THOMAS DALE,

Paper hanger, Whitener and Wall colorer. No. 188 Market street, near Alex. Leitch & Co's. Drug store, St. Louis, Mo.

☞ Job Plastering done at short notice and best style.

All orders for work promptly executed.

Manufacturers.

THOMAS GREY, Blacksmith and Iron Worker, No. 80 North Second street, between Olive and Locust, St. Louis, Mo., keeps constantly on hand and manufactures to order Ox Chains, Sledges, Wedges, and every description of Mining Tools, also Iron Hobbles and Picket Pins. ☞ Blacksmith work for Housebuilders, at the lowest prices. ☞ He has always on hand the highly recommended Iron Frame Bedstead, and Camp Stool.

Mathematical Instruments.

J. BLATTNER, Mathematical and Surgical Instrument maker, Dealer in Guns, Pistols and Sporting Materials, No. 98 North Second street, between Pine and Olive, St. Louis, Mo., manufactures, and has always on hand: Surveyor's Compasses, Levelling Instruments, Theodolite Pocket Compasses, 3 y-glasses, Barometers, Thermometers, Drawing Instruments, Spectacles, Ivory and Hunter's Scales and Protractors, Hour and Half Hour Glasses, Microscopes and Magnifying Glasses, Hydrometers of silver and glass, hydrometers for acids and salts, Magic Lanterns, Electrical Machines, &c., also, Surgical and Dental Instruments; Pocket, Dissecting, Cupping and self-injecting cases; Taylor's Shears, all sizes; Syringes, large and small, Scarificators, Lancets; Forceps; Turnkeys; large Scales and Weights for Druggists; Prescription Scales on Stands; Revolvers, Guns, Pistols, Powder Flaks, Game Bags, &c. ☞ All the above Instruments repaired at short notice in the best manner.

Fruit Trees.

FRUIT TREES AND SHRUBBERY, for sale by the undersigned, on their fruit farm and nursery. This establishment is located seven miles South of St. Louis, Mo. There are Omnibus Coaches running daily from the City within one half mile of the establishment. The Nursery and Gardens are open at all times (Sundays excepted) for the reception of visitors. Horticulturists and amateurs are respectfully invited to visit the establishment and examine for themselves. In directing the attention of the public to their nursery, they would remark that one of the firm, (Mr. James Sigerson,) has been engaged in the above business for the last twenty-five years; during that time he has tested many of the varieties now growing. This, with the assurance on their part of an intention to increase the number of their trees, as well as to add to their assortment from year to year, furnishes a strong guarantee to persons wishing to make choice selections of fruit, that they can always be supplied. Their prices for trees will be as reasonable as at any similar establishment East or West, and when desired, trees will be delivered free of charge in the city or on steamboats; packed in good order for their destination.

☞ All letters addressed to John Sigerson, St. Louis, or to James Sigerson, Carondelet, will meet with prompt attention.

JOHN SIGERSON & BROTHERS.

Hardware.

P. WONDERLY, Manufacturer of Copper, Tin and Sheet Iron work—such as Copper Pipes for Steamboats and Distilleries, Soda Fountains, Copper Kettles, Well and Cistern Pumps, and every other article in his line of business. No. 283 Main street, South-east corner of Cherry, St. Louis, Mo. He also manufactures and keeps constantly on hand, Premium Steamboat Cooking Stoves. Tinware always on hand, wholesale and retail.

Furniture.

WM. M. HARLOW, proprietor of the St. Louis Furniture Store, manufactures and keeps constantly on hand every variety of household furniture, mattresses, window blinds, willow ware, &c.

Also, manufactures to order every article in his line, with despatch. Orders from abroad promptly attended to, and goods carefully packed. All goods warranted as recommended.

New Warehouse, No. 88 Second street, between Olive and Locust streets, St. Louis Mo.

Slate Yard.

JOHN M. CANNON, Slater, No. 16 and 17 South Sixth street, St. Louis, would respectfully inform the public that, having now completed his arrangements, he is prepared to make contracts for any work in his line. He has in his employ practical slaters, and is well prepared to execute in a workmanlike manner, and with despatch, all orders entrusted to his care. He keeps constantly on hand, and for sale, Welch slate, rich tiles, sheet lead, slate tagging, slate hearths, copper, brass and iron slating nails, Rosendale cement, and all other articles pertaining to his business. He will strip from roofs zinc, sheet iron, tin, or other covering, and substitute therefor slate. Slate removed from one roof, can be used to advantage on another, which is not the case with any other roofing material. His terms are such as cannot but prove satisfactory. Apply as above.

Paper Hangings.

WOLF & ENGERT, Importers and dealers in Paper Hangings, Colors and Fancy Papers, No. 49 South Second street, between Elm and Myrtle, St. Louis, Mo. Constantly on hand, all kinds of oil and water colors, paper hangings, chimney screens, tester pieces, window shades, marble, marroquin, Gold and Silver paper, painters' and Dutch gold bronze, lead pencils, paint boxes, paint brushes, drawing paper, &c. April, 1860

Washington Steam Sash Factory.

B. PHILIBERT,

WASHINGTON Avenue and 14th street, south side St. Louis, Mo., manufacturer of Doors, Sash and Blinds. Also Door and Window Frames. Terms moderate. N.B.—Slitting and Planing, done here.

Banking Houses.

PAGE & BACON, Banking House No. 139 Main street, St. Louis, next door to the Bank of Missouri.

N. B. Deposits received, Drafts and Notes from all parts of the Union collected and Exchange on the East and South for sale at all times.

Also Branches of Exchange and Banking Houses at San Francisco and Sacramento Cities, California.

L. A. BENOIST & CO., bankers and exchange dealers, No. 33 Main street, east side third door north of Olive street, St. Louis, Mo. Interest paid to depositors, drafts and notes collected, sight and time bills purchased, and sight exchange on the eastern cities and New Orleans for sale, at the lowest rates, in sums to suit purchasers.

JOHN J. ANDERSON & CO., bankers and exchange dealers on the north-west corner of Main and Olive streets, St. Louis, Mo. Interests paid to depositors, drafts and notes collected, sight and time bills purchased and exchange on the eastern cities and New Orleans for sale at the lowest rates.

LOKER, KENICK & CO., bankers and exchange dealers, No. 132 Main street, west side, third door north of Vine street, St. Louis, Mo. Interest paid to depositors, drafts and notes collected, sight and time bills purchased and sight exchange on the eastern cities and New Orleans for sale at the lowest rates in sums to suit purchasers.

LUCAS & SIMONDS, Bankers and Exchange Dealers, Corner of Main and Chestnut Streets, St. Louis, Mo.

Drugs.

CHARLESS, BLOW & CO., Importers and Wholesale Dealers in Drugs, Paints, White Lead, Oils, Window Glass, Glassware, Perfumery, &c., Nos. 70 and 72 Main Street, St. Louis, Mo. ☞N. B. Ginseng and Beeswax bought at highest market rates.

St. Louis Cotton Factory.

ADOLPHUS MEIER & CO., Manufacturers of St. Louis Cotton Yarn, &c., Importers and Dealers in HARDWARE and CUTLERY, No. 22, corner of Main & Chestnut Streets, St. Louis, Mo.

Hats & Caps.

H. & R. B. WHITTEMORE & CO., wholesale dealers in Hats, Caps, Bonnets and Straw Goods, No. 143 Main str., St. Louis, Mo. ☞Cash paid for Furs and Deer Skins.

Dry Goods.

CROW, McCREERY & CO., Wholesale dealers in Dry Goods, No. 71 Main street, St. Louis, Mo. Weyman Crow, Phoceon R. McCreery, Wm. H. Barksdale, Wm. A. Hargudine, Charles D. Appleton.

WOODS, CHRISTY & CO., wholesale dealers in Dry Goods, No. 76 Main street, St. Louis, Mo. James Woods, William T. Christy, James C. Christy, Robert K. Woods.

CHOUTEAU, HARRISON & VALLE, Commission Merchants and Proprietors of the St. Louis Rolling Mill. Manufacturers, from the ore of the Iron Mountain, of Bar Iron in all its various shapes, Sheet Iron and Boiler Plate, Nails, Spikes, &c., &c.
Warehouse No. 129 North 2d street, St. Louis

Watches and Jewelry.

C. D. SULLIVAN & CO.,

JEWELLERS, Watch and Clock Makers, No. 39 Fourth Street, opposite the Planter's House. A large and well selected assortment of Clocks, Watches, Jewelry and Silver Spoons constantly on hand and for sale low. All kinds of Jewelry made to order and neatly repaired. Engraving neatly executed. The highest price paid for old Gold and Silver. All orders punctually attended to.
March 1862.

PACIFIC RAILROAD.

Winter Arrangement.

On and after the 28th of October, or until further notice, trains will run regularly Every Day, including Sundays, connecting at Meramec with F. Bartold's Stages to Manchester and Ellisville, and at Franklin with Sanger & Co.'s stages to Jefferson City, and Washington, Mo., as follows, to wit:

ST. LOUIS TO FRANKLIN.

Leave St. Louis	at	9 30 A. M.
do.	do.	4 00 P. M.
Arrive at Franklin	at	11 15 A. M.
do.	do.	6 05 P. M.

FRANKLIN TO ST. LOUIS.

Leave Franklin	at	7 00 A. M.
do.	do.	1 00 P. M.
Arrive at St. Louis	at	8 46 A. M.
do.	do.	2 45 P. M.

The above trains stop at all the way Stations.

Omnibusses leave the Planters' House, on Fourth street, half an hour in advance of every train, and run regularly in connection to and from all the trains.

Passengers are particularly requested to purchase tickets of the Agents, at each end of the line, before taking seats in the Cars. Extra charge for tickets purchased in the cars.

U. S. MAIL.—Sanger & Co. will run a daily line of four horse Post Coaches as follows: Leaving Franklin in connection with the 8.30 A. M. train from St. Louis. They will run coaches to Jefferson City, and thence westward and south-westward. They will also run a line of four horse Post Coaches, via Union, to Washington. Time to Washington, from St. Louis, 7 hours; to Jefferson City, 20 hours.

Tickets to be procured of Sanger & Co., at their office, under the Planters' House, Fourth street, or at the Depot of the Railroad, on Fourteenth street

JAMES M. WARD, Ass't Sup't.
Office P. R. R. Depot, Fourteenth street.